

# NATIONAL BUILDER CONSTRUCTION DETAILS



TRADEPRESS PUBLISHING CORPORATION  
Chicago, Illinois, U. S. A.  
1920



# **The National Builder Construction Details**



# NATIONAL BUILDER

## CONSTRUCTION DETAILS

Seventy-two Plates of Architectural Details Representing  
Problems of Every-Day Practice in Original Drawings  
and Selections from a Variety of Authoritative  
Sources, the Whole Redrawn to a Uniform  
Style and Printed Directly from  
the Original Etchings.

TRADEPRESS  
PUBLISHING CORPORATION  
CHICAGO  
1920

cluding not only architects, contractors, builders, and materialmen, but each and every one of their assistants. The suggestions may concern methods shown in their book or may cover features not included. They may be small scale blue-prints or rough sketches with the explanations written in. The principal value lies in the idea behind the design.

The importance of individual cooperation in making future editions of this book worth while cannot be too strongly stressed. Every one of us is dependent on others for his knowledge and to pass along the information is a duty, not a choice. Suppose each man from the beginning had withheld his bit of knowledge from the community at large. Can a skyscraper or even the humblest of modern buildings be imagined as possible under such circumstances? It is your duty to send in details as interest payments on the vast debt which you owe to the millions of unselfish men whose interchange of ideas for thousands of years has made our every possession possible.

The writer wishes to express his gratitude to the architects, builders, contractors, materialmen and others who so freely gave their assistance during the preparation of the plates. If the book falls short of its aim it will not be due to selfishness nor lack of cooperation on their part.

November, 1920.

**JIM T. POMEROY,**  
Associate Editor National Builder.

# CONTENTS

**PLATE 1—Basement Window Above Grade:**

Brick foundation walls with 8 and 12-inch hollow tile walls above. For both flat and arched lintels. Method of increasing headroom above window. These details may easily be modified for solid brick walls.

**PLATE 2—Basement Windows With and Without Areas:**

For both swinging and double-hung sash; 8 and 12-inch concrete foundation walls with brick, hollow tile and frame walls above. Methods of weather stopping with water bars and caulking.

**PLATE 3—Windows in Frame Walls:**

Showing two types of double-hung windows and two types of casements, one opening in and the other opening out. Casements, even on cheap work, should have 1 3/4-inch sash as shown, as they must resist greater strains than do double-hung sash. Outside opening casements should always be fitted with adjusters for opening and holding them in place.

**PLATE 4—Windows in Frame Walls:**

For stucco finish. Showing casement and double-hung sash. A special casement with divided top and bottom sash to open independently—Dutch door fashion, a method of weather-stopping under sills.

**PLATE 5—Windows for Brick-Veneered Frame Walls:**

Casements opening out and double-hung sash. Shows method of supporting lintels, mullions, meeting stiles, rails, etc.

**PLATE 6—Casements Opening Out, for Brick-Veneered Hollow Tile Walls:**

Flat and arched lintels showing methods of supporting brickwork, also shows a thin partition mullion and methods of weather-proofing.

**PLATE 7—Double-Hung Windows for Hollow Tile Walls:**

Showing windows for both 12 and 8-inch walls. Shows reinforced concrete tile lintels, stone slip sills, plaster interior jambs, a mullion, etc.

**PLATE 8—Double-Hung Windows in Brick Walls:**

Showing the construction of windows with and without transoms, with details of transom bars, lintels, weather-proofing, etc. Also shows a "plank front" frame modified from old Colonial work. This frame is shown with either wood or brick sub-sill.

**PLATE 9—Double-Hung Windows for Monolithic (Solid) Concrete Walls:**

Shows a very practical frame in which sheet metal takes the place of wood in forming the weight box. Another frame shown utilizes a sheet metal sill cover. Methods of forming lintels and sills and weather-proofing are also shown.

**PLATE 10—Double-Hung Windows for Concrete Walls:**

One type for double walls and another for concrete block walls. Also shows nailing blocks for trim and methods of forming lintels, sills, etc.

**PLATE 11—Double-Hung Windows for Half-Timber Work:**

For 8 and 12-inch hollow tile walls. Also shows methods of attaching half-timber work to walls, weather-proofing, etc. A corner mullion is shown.

**PLATE 12—Dormer Windows:**

Two types of Colonial type dormers with double-hung sash. Also methods of framing, flashing, etc.

**PLATE 13—A Two-Story Bay Window:**

Showing casements opening out and French exterior doors in frame walls. Shows construction of sill, corner, exterior paneling, cornice, a wrought iron railing, etc.

**PLATE 14—A Bay Window for a Stair Landing:**

Showing double-hung sash with angle mullions and jamb. Also shows framing for a metal roof, a hood and a window seat, together with a method of insulating an overhanging floor.

**PLATE 15—Porches:**

Showing both Colonial and English types. Methods of framing roofs, columns, etc.

**PLATE 16—Porches:**

Showing English type porches. Methods of framing roofs, posts, brackets, etc.

**PLATE 17—A Living Porch:**

With French doors and casement sash opening out. Shows framing for sills, posts, corners, cornice, etc. Also methods of exterior and interior paneling.

**PLATE 18—An Entrance Porch:**

A two-story open porch (modified Southern Colonial), with brick terraces at sides. Shows construction of columns, railing, etc.

**PLATE 19—Exterior Blinds and Shutters:**

Shows the construction of a combination type with solid panel below and louvers above, also two types of solid shutters, together with various saw-cut patterns.

**PLATE 20—Flower Boxes:**

Shows the construction of both plain and paneled face types with metal linings, drain tubes, etc.

**PLATE 21—Hoods:**

Shows exterior hoods for windows and rear entrances. Shows general construction, metal covering, brackets, etc.

**PLATE 22—Gutters and Cornices:**

Shows the framing for various cornices and the construction of six types of gutters, both wood and sheet metal.

**PLATE 23—Roof Details:**

Shows the construction of a pleasing form of metal ridge roll; a method of improving the appearance of roofs covered with prepared roofing; the framing and weather-proofing for a roof scuttle or hatch, and a tilt board for eaves or gutter.

**PLATE 24—Shingling:**

Shows both "regular" and "coursed" methods of laying shingles on walls and roofs; also methods of laying valleys and "Boston" hips.

**PLATE 25—Chimney Tops:**

Shows 18 types of chimneys of brick, stone, cement, stucco and terra cotta.

**PLATE 26—A Brick Wall, Iron Fence and Gates:**

Shows the construction of a brick wall with wooden gates and an iron fence with ornamental iron gates.

**PLATE 27—A Library Entrance:**

Shows the plan of elevation of a vestibule entrance to a branch library. Shows brick and stucco paneled frieze; stone jointing, etc.

**PLATE 28:**

Shows the sections of the library entrance on Plate 27. Shows brick pattern interior walls, framing for curved roof, stone jointing, etc.

**PLATE 29—Door Details:**

Shows various types of both solid paneled and glazed doors with details of panel moulds, muntins, etc.

**PLATE 30—A Paneled Vestibule:**

Shows the construction of the base, rails and cornice of a paneled vestibule with mirrors in the side walls.

**PLATE 31—Interior Trim:**

Shows a ceiling beam, plate rail casings, etc., of "plain" trim.

**PLATE 32—Interior Trim:**

Shows five complete sets of Colonial trim, each consisting of picture molds, casings, stools, aprons and bases.

**PLATE 33—Interior Head Casings:**

Shows various types of head casings with details of their construction.

**PLATE 34—Ceiling Beams:**

Shows a "run" plaster beam and a wooden beam with ornamental bracket treatment. Shows furring and general construction.

**PLATE 35—Wooden Cornices for Interior:**

Shows the design and construction of three types.

**PLATE 36—Plaster Cornices for Interior:**

Shows three types of "run" cornices with methods of furring, etc.

**PLATE 37—Stair Designs:**

Showing four designs for open and closed string stair.

**PLATE 38—A Stair:**

Showing the design and construction of a stair with turned newel and baluster. Shows details of base, outside string, wall string, balusters, shoe, tread and riser, etc.

**PLATE 39—Details of a Combination Stair, Bookcase and Seat:**

Shows a stair, bookcase and seat grouped to form a unit.

**PLATE 40—An Iron Stair for a Bank Building:**

Shows the design and construction of a cast iron stair with marble treads.

**PLATE 41—Built-in Seats:**

Showing four types of built-in seats, two of which are designed for use over radiators. Two methods of insulating radiator seats are shown.

**PLATE 42—Breakfast Alcoves:**

Showing the design and construction of two types of tables and seats.

**PLATE 43—A Radiator Enclosure:**

Showing a method of hiding unsightly radiators. Shows details of the bottom, corners and ends and a method for insulating the top.

**PLATE 44—Bookcases:**

Showing both high and low types with details of the construction of the bottoms, mullions, ends, tops, etc.

**PLATE 45—A Corner Fireplace and China Case:**

Showing a Colonial type design for a dining room, with details of the woodwork.

**PLATE 46—Brick Fireplaces:**

Showing three designs used in a country club, but offering suggestions for other locations. One is a double fireplace, opening into two rooms.

**PLATE 47—A Sacristy Cabinet:**

Showing a Gothic design with details of the moldings, construction, etc.

**PLATE 48—Medicine Cabinets:**

Showing four types with various style mirrors, drawers, open shelves, etc.

**PLATE 49—Kitchen Cupboards:**

Showing two types combined with sinks. One has a cooler at one side. Sections show the treatment around the sink, sliding work boards, drawers, shelves, etc.

**PLATE 50—A Kitchen Cabinet:**

Showing a large cabinet which contains several useful features, one or several of which might be utilized for smaller cabinets. Shows details of a table-cloth drawer and a pot-lid rack for the back of a door.

**PLATE 51—Bowls for Porch Fountains:**

Showing two ornamental features in cast concrete. Shows the arrangement of the required water system, etc.

**PLATE 52—Duplex Shower Stalls:**

Showing a shower combined with two dressing rooms, thus increasing the service of each shower. A practical idea for any semi-public building containing shower baths.

**PLATE 53—Coal Hole and Pipe Duct Covers:**

Showing a weather and thief-proof coal hole cover. Also shows methods of covering pipe ducts with steel and reinforced concrete covers.

**PLATE 54—Blackboard Installation:**

Showing four types of blackboards with details of their construction.

**PLATE 55—Windows for Standard Hardware:**

Showing the important dimensions which govern the design of windows to take standard hardware.

**PLATE 56—Doors for Standard Hardware:**

Showing the important dimensions which govern the design of doors to take standard hardware.

**PLATE 57—Diagrams of Various Plans for Store Fronts:**

Showing twenty-four plans for store fronts, including revolving door and corner types.

**PLATE 58—Methods Used in Setting Terra Cotta:**

Showing the anchors, hangars, tier, etc., commonly used in setting architectural terra cotta.

**PLATE 59—Fire Stopping:**

Showing twenty-five details of the critical points in average buildings which should be fire-stopped. A small amount of expense in this regard will result in a large saving in case of fire.

**PLATE 60—Metal Lath Construction:**

Showing methods of protecting beams and columns, also various methods of forming and hanging suspended ceilings.

**PLATE 61—Concrete Wall Construction:**

Showing eleven types of wall construction, together with various methods of furring which may be applied to other types of masonry construction.

**PLATE 62—Concrete Details:**

Showing various details of concrete construction, including roof sections, corners, formwork, etc.

**PLATE 63—Barn Details—Trussed Roof:**

Showing the design and framing of a trussed roof for a barn. Shows details of the important joints.

**PLATE 64—Barn Details—Trussed Roof:**

Showing details of the construction of a trussed roof for a wide barn with hollow tile walls. Shows details of the important joints.

**PLATE 65—Barn Details—Roof Framing:**

Showing two types of roof framing with details of the important joints.

**PLATE 66—Barn Details—Gothic Roof Trusses:**

Showing two types of Gothic roof framing with details of design and construction.

**PLATE 67—Barn Details—Roof Finish:**

Showing gable and curb finish, also three treatments for eaves.

**PLATE 68—Barn Details—Columns and Corner Framing:**

Showing various types of interior columns, with their anchors and connections to girder. Shows method of constructing both first and second story corners of frame barns.

**PLATE 69—Barn Details—Windows:**

Showing the construction of windows for both frame and hollow tile walls.

**PLATE 70—Barn Details—Doors:**

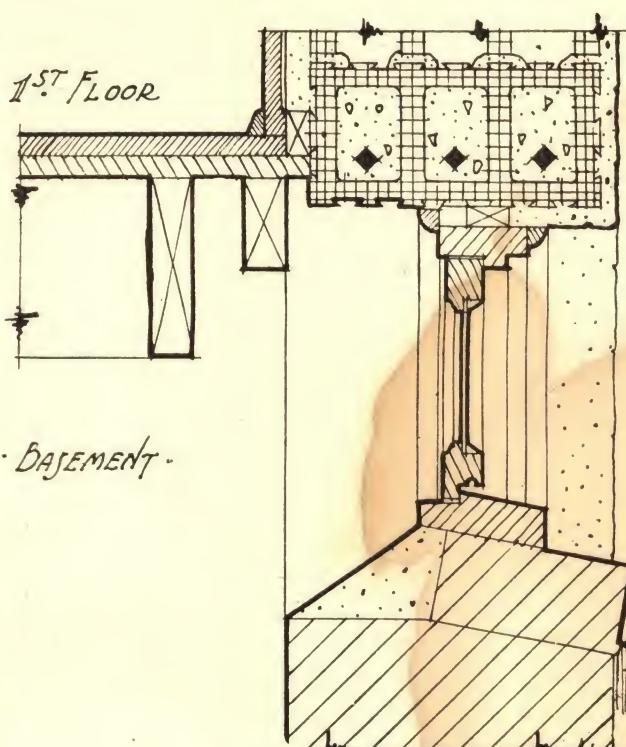
Showing the construction of both sliding and hinged doors.

**PLATE 71—Barn Details—Mangers:**

Showing the construction of a tilting manger for cow or bull pens, also a manger for calf pens.

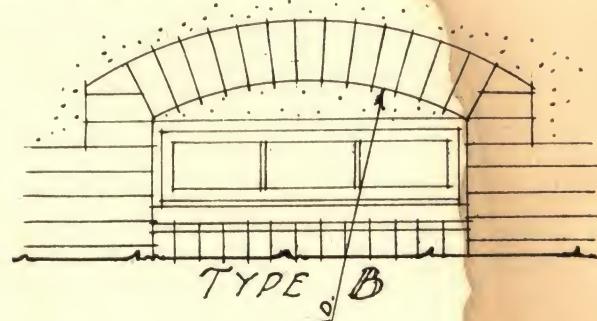
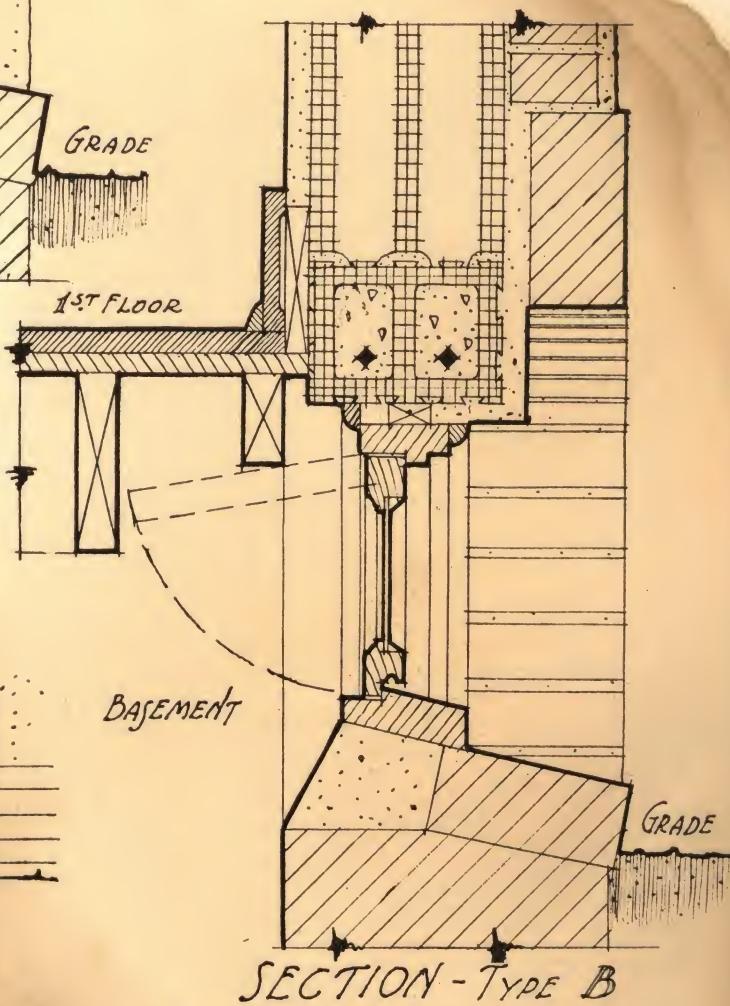
**PLATE 72—Barn Details—Ventilation:**

Showing the arrangements and construction of both fresh and foul air ducts for gravity systems of ventilation.



SECTION - TYPE A

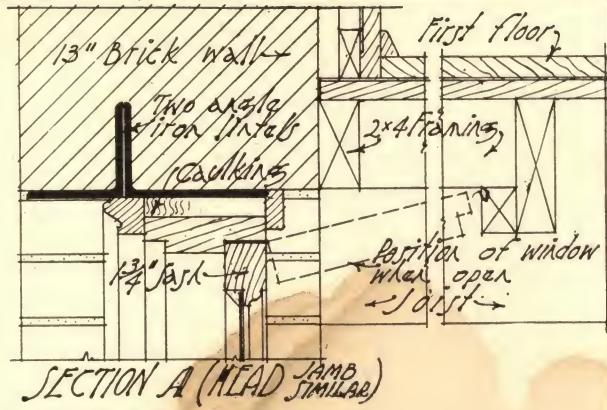
No. B. (For Each Type)  
BRICK FOUNDATION WALL.  
HOLLOW TILE WALL ABOVE.  
REINFORCED CONCRETE-TILE LINTELS.  
BRICK SILLS & BASE COURSE.  
STUCCO FINISH EXTERIOR.  
WOOD SASH, FRAMES, ETC.



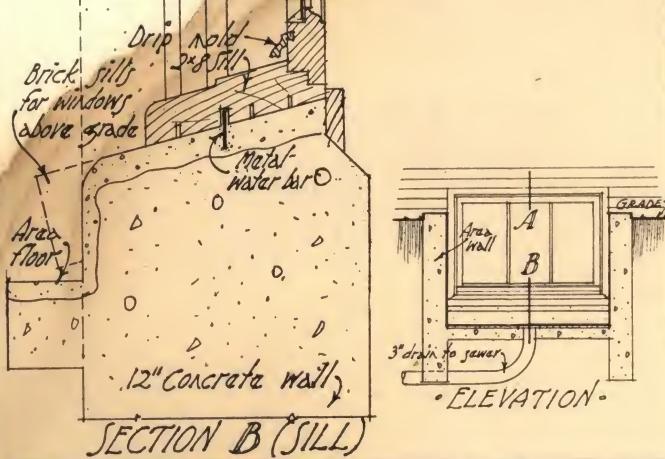
## - BASEMENT WINDOWS -

- IN HOLLOW TILE WALLS -

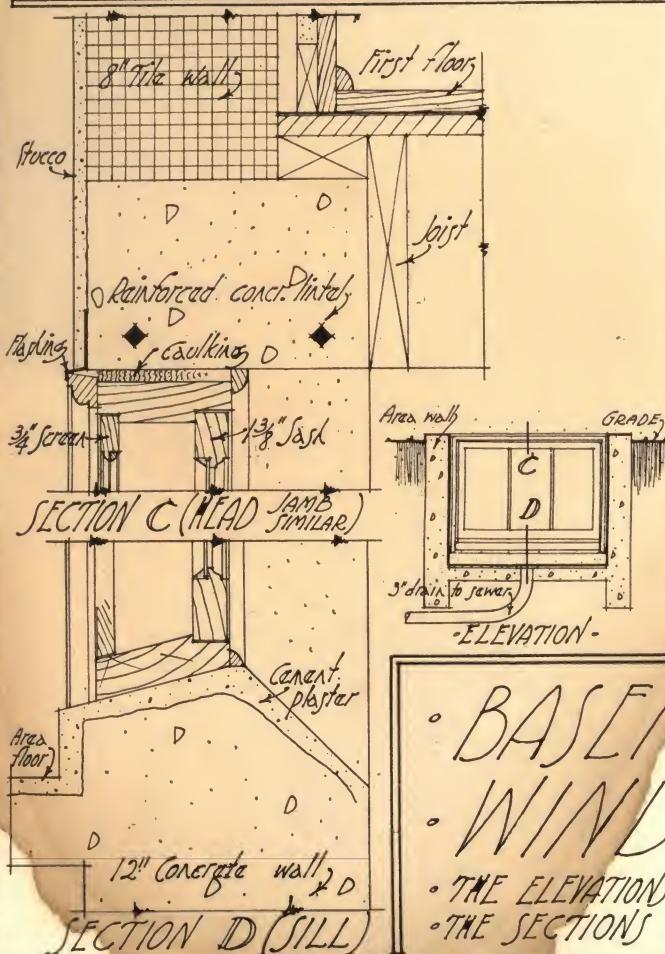
CHICAGO HOUSING ASSOCIATION - CHAS S. FROST, ARCH'T.  
1/2 Inch to 1 Foot - Sketches - - - SCALES - - - Sections, 1 1/2 inches to 1 foot



SECTION A (HEAD JAMB SIMILAR)



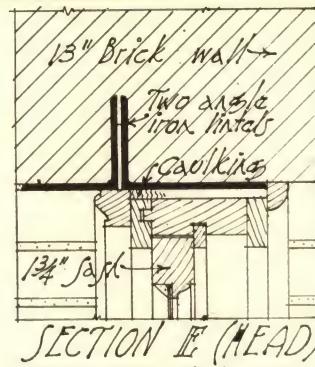
SECTION B (SILL)



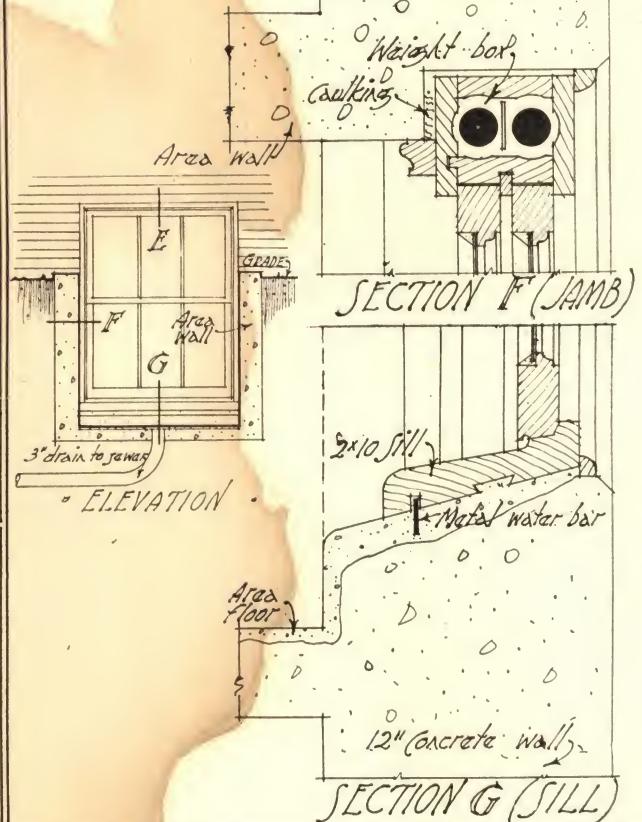
SECTION C (HEAD JAMB SIMILAR)



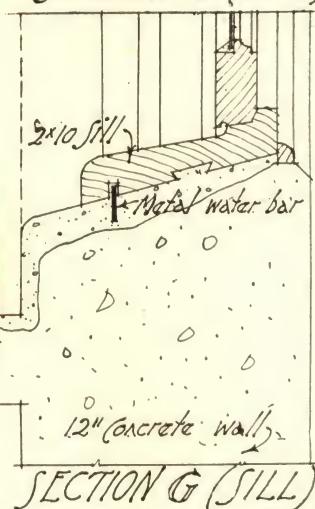
SECTION D (SILL)



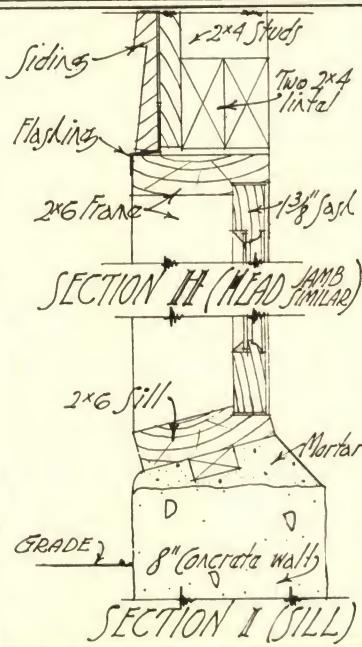
SECTION E (HEAD)



SECTION F (JAMB)

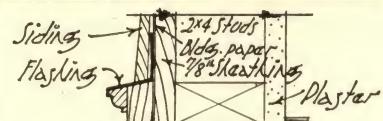


SECTION G (SILL)

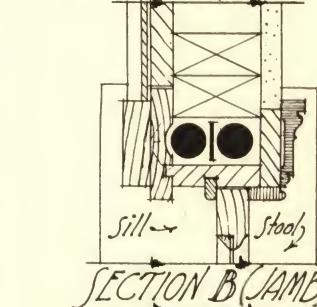


SECTION H (HEAD JAMB SIMILAR)

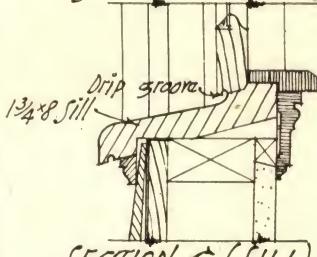
• BASEMENT •  
• WINDOWS •  
• THE ELEVATIONS ARE  $\frac{1}{4}$ -INCH SCALE •  
• THE SECTIONS ARE  $\frac{1}{2}$ -INCH SCALE •



SECTION A (HEAD)



SECTION B (JAMB)



SECTION C (SILL)



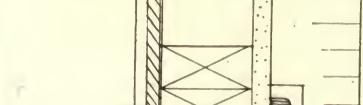
SECTION D (HEAD)



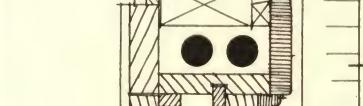
SECTION E (JAMB)



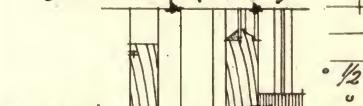
SECTION F (SILL)



SECTION G (HEAD)



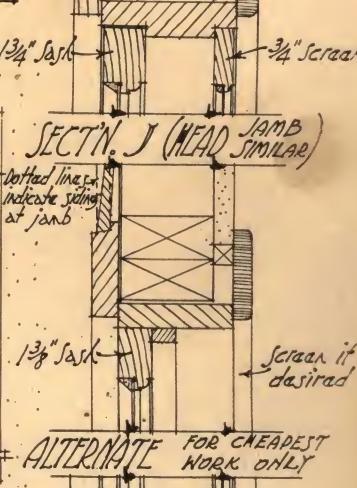
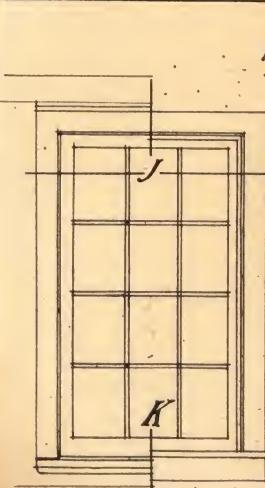
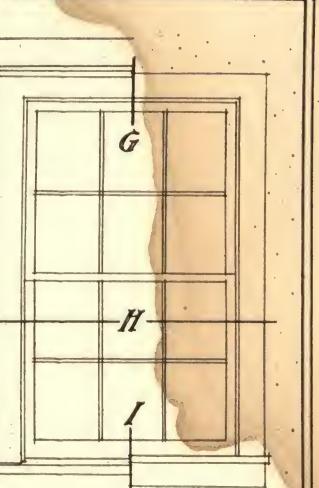
SECTION H (JAMB)



SECTION I (SILL)

## WINDOWS IN FRAME-WALLS.

THE ELEVATIONS ARE  $\frac{3}{8}$ -INCH SCALE.  
THE SECTIONS ARE  $\frac{1}{2}$ -INCH SCALE.

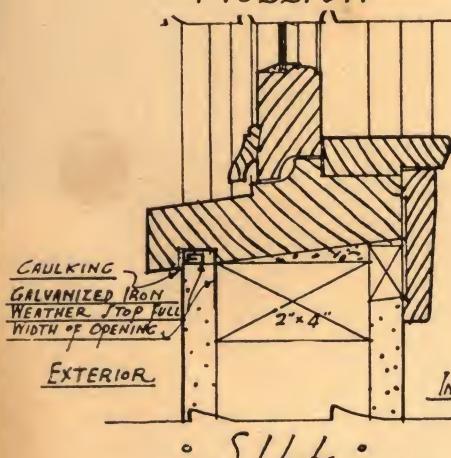
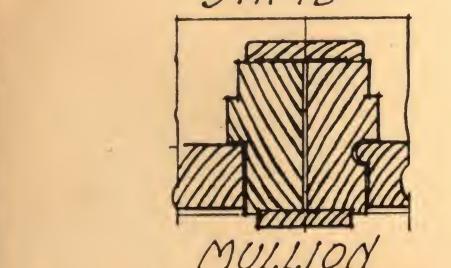
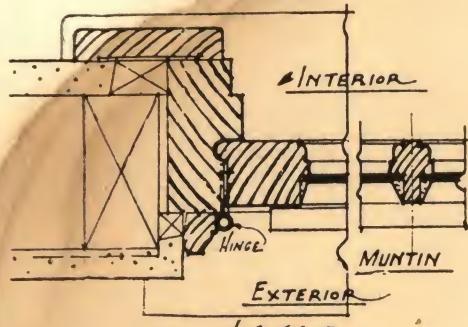
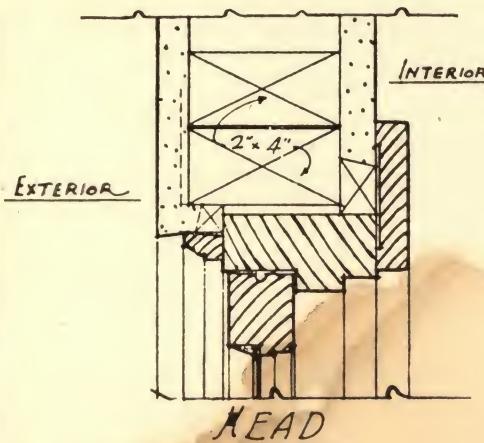


1/2 EXTERIOR - 1/2 INTERIOR - ELEVATION - DOUBLE-HUNG SASH (THIS TYPE WAS USED ON A HOUSING PROJECT FOR COLORED LABORERS AT PORTSMOUTH, VIRGINIA - - -) ROSEL E. MITCHELL, ARCHT.

1/2 EXTERIOR - 1/2 INTERIOR - ELEVATION - CASEMENTS OPENING OUTWARD FOR CHEAP WORK

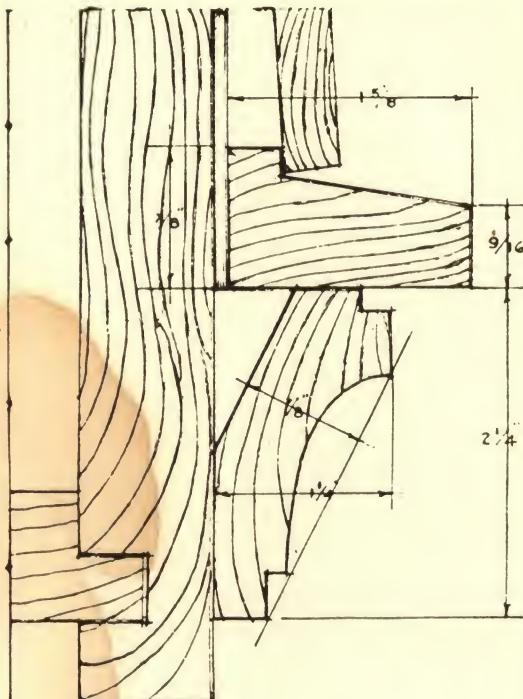
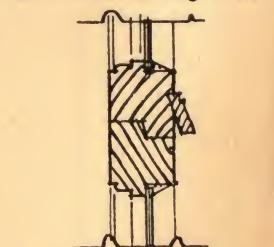
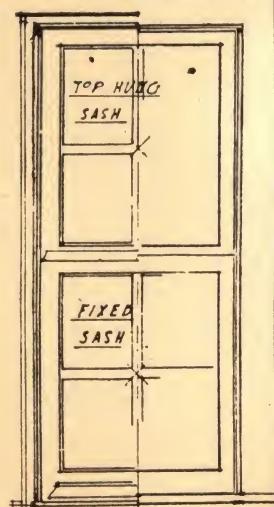
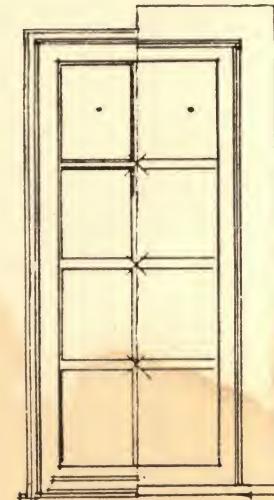
(1 3/4" x 8" sill)

SECTION K (SILL)

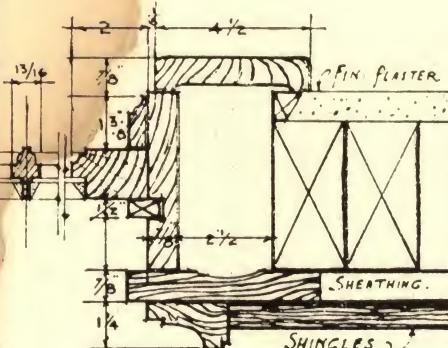


CASEMENTS FOR STUCCO &  
SHEATHING BOARD  
SCALE 0 2" 4" 6" 8" 10" 12"

WINDOWS IN FRAME WALLS  
ONTARIO HOUSING COMMITTEE

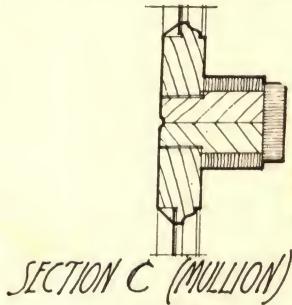
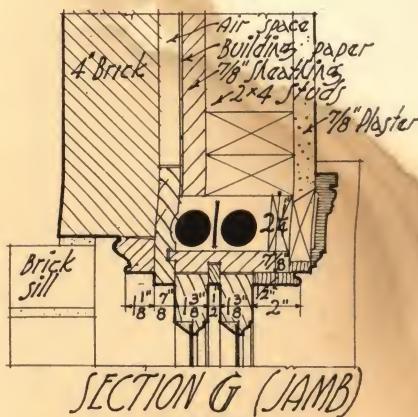
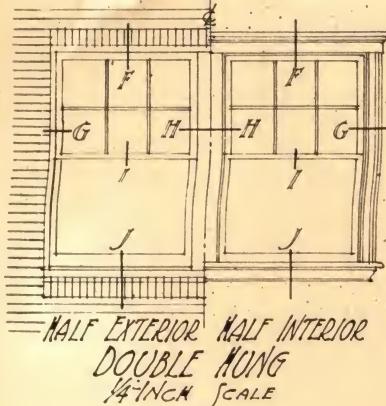
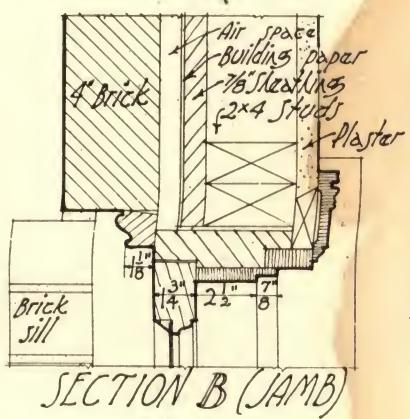
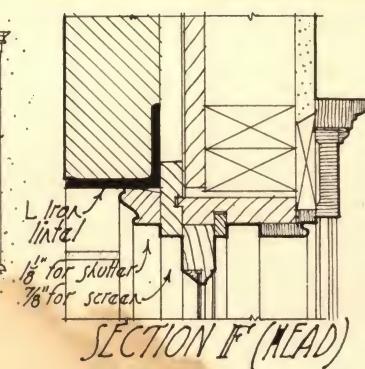
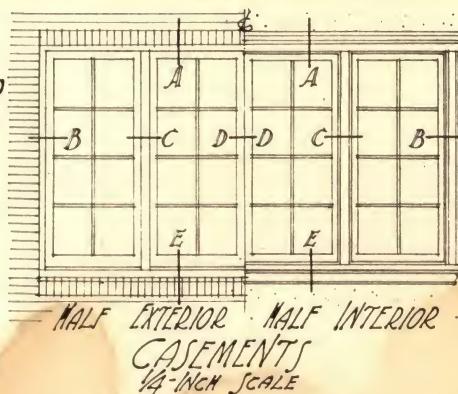
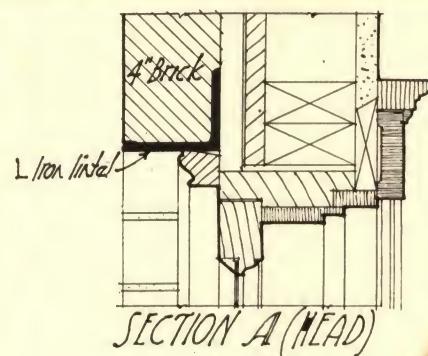


DETAIL & HEAD FOR  
D.H. WINDOWS (EXTERIOR)



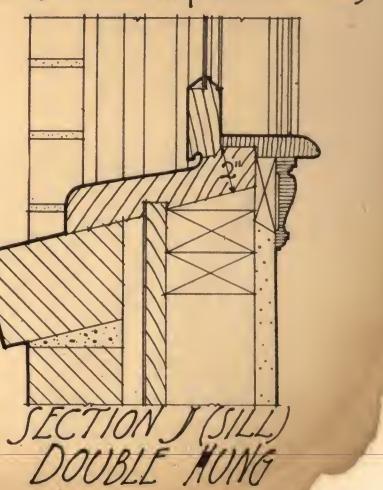
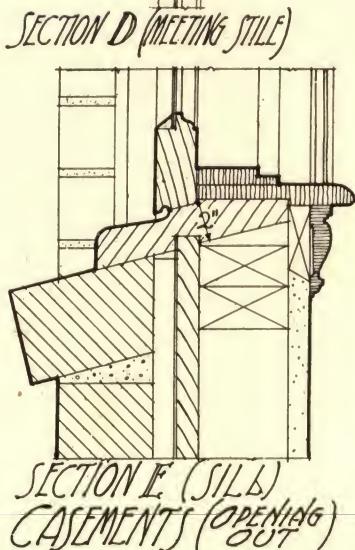
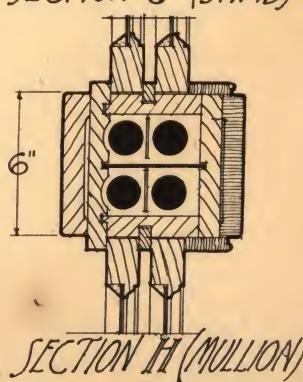
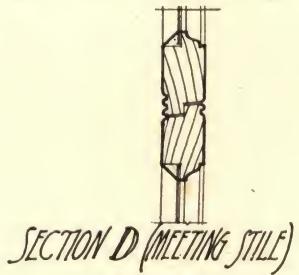
JAMB.

DOUBLE-HUNG  
FOR SHINGLES  
OR SIDING  
SCALE 0 2" 4" 6" 8"

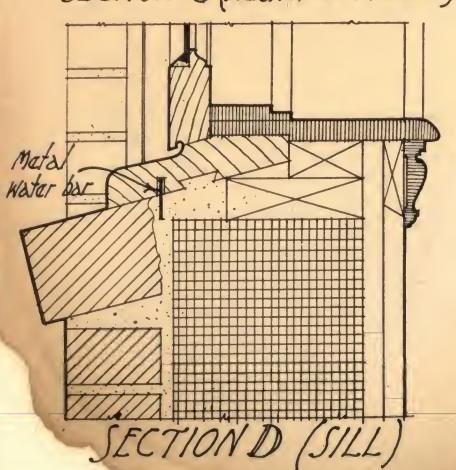
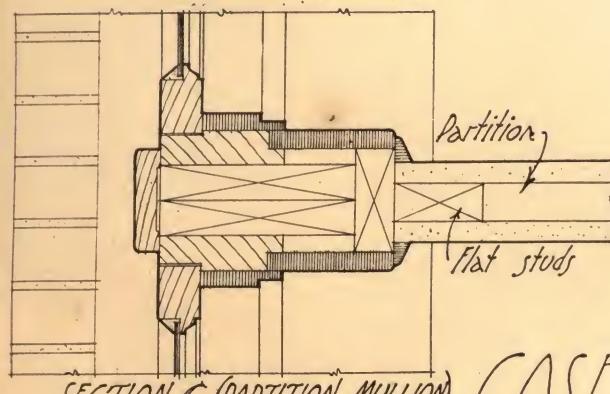
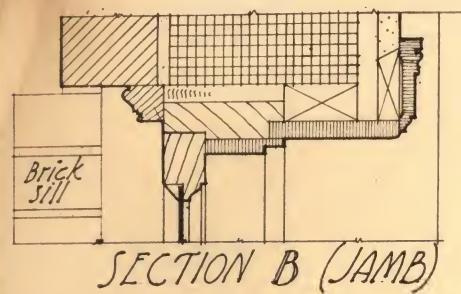
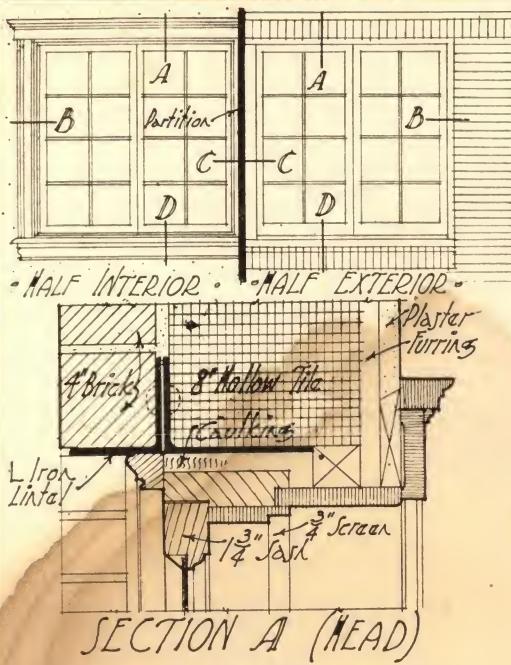


## WINDOWS FOR BRICK VENNERED FRAME WALLS.

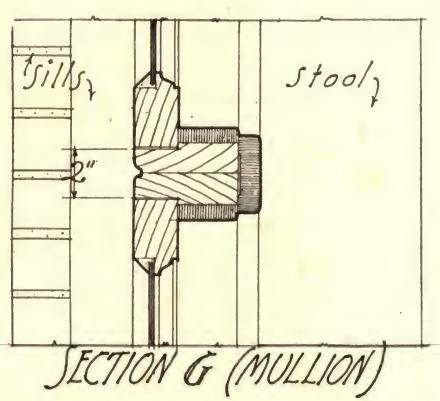
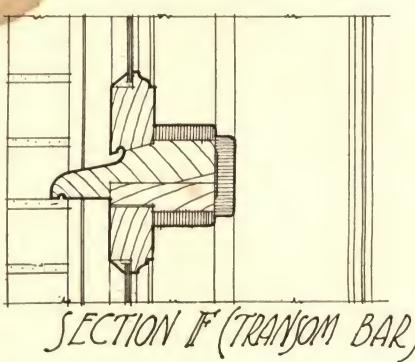
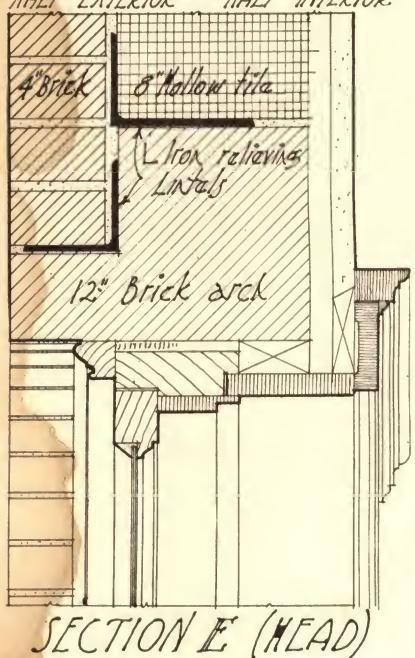
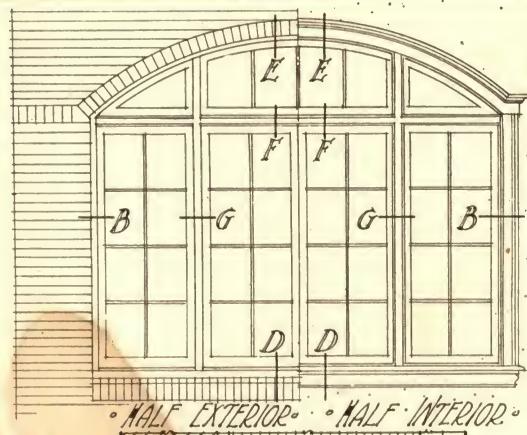
• 1/2 - INCH SCALE •

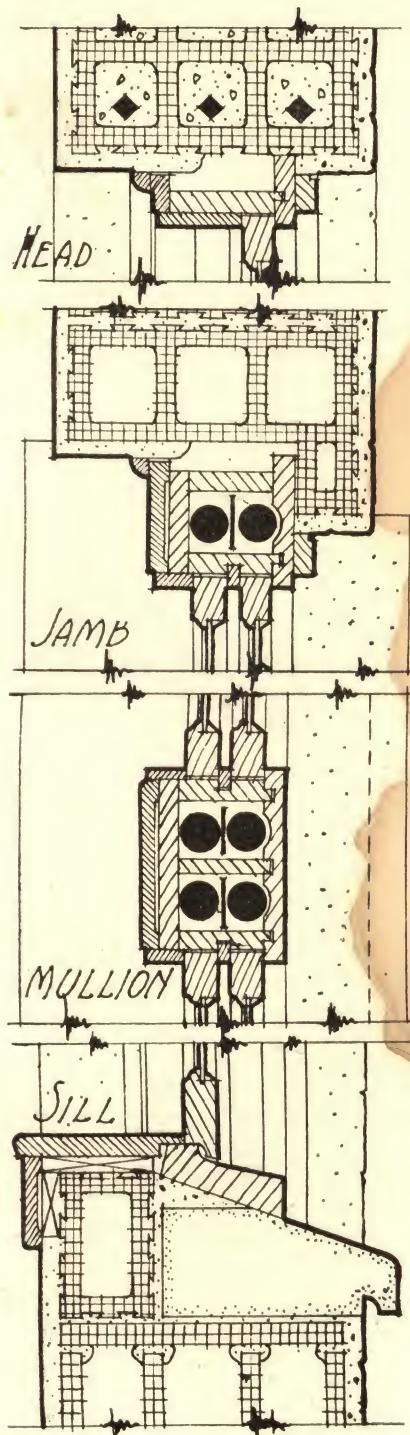


SECTION J (SILL)  
DOUBLE HUNG

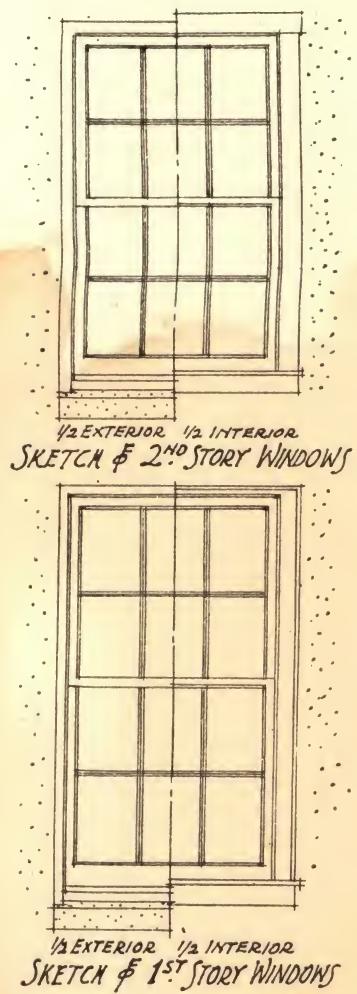


CASEMENTS  
OPENING OUT.  
1/2 BRICK VENEERED  
HOLLOW TILE WALLS  
1/2-INCH SCALE.

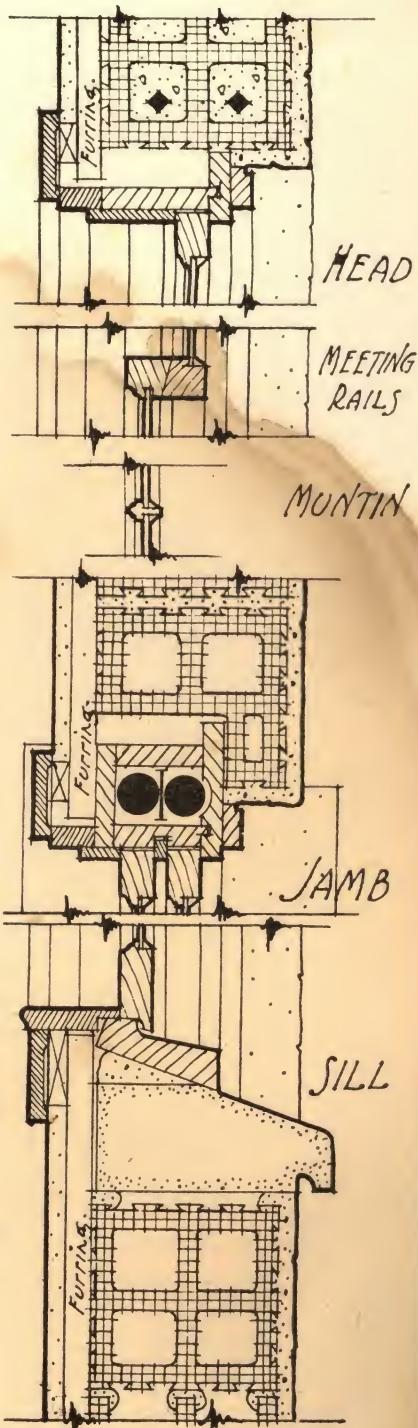




- SECTION - 1<sup>ST</sup> STORY - (12" WALLS) -



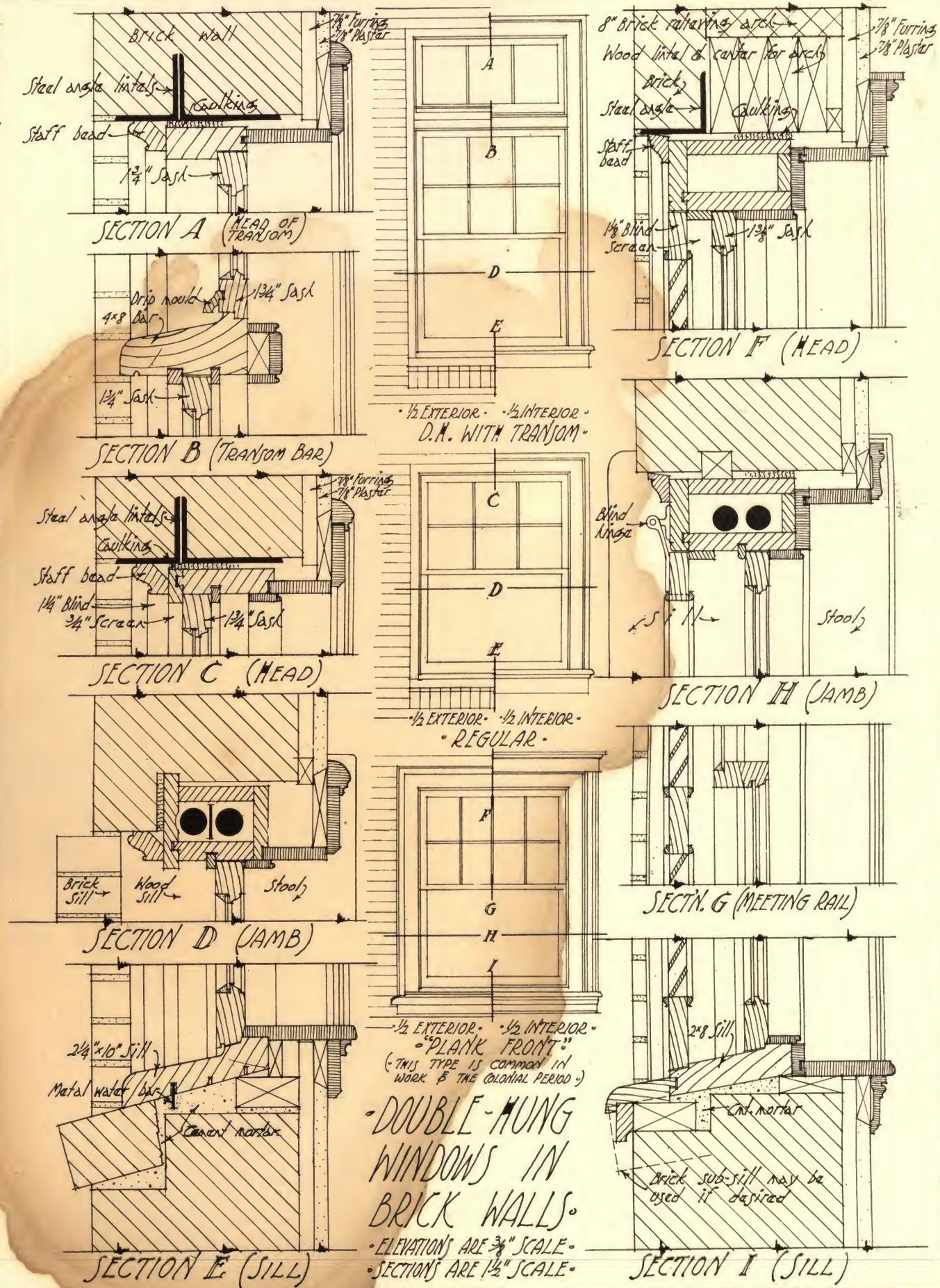
N.B.  
HOLLOW TILE WALLS, STUCCOED.  
REINFORCED CONCRETE-TILE LINTELS.  
STONE, SLIP SILLS.  
WOOD SASH, FRAMES, ETC.  
INTERIOR PLASTER APPLIED DIRECT  
TO 12" WALLS; 8" WALLS FURRED,  
LATHE & PLASTERED.

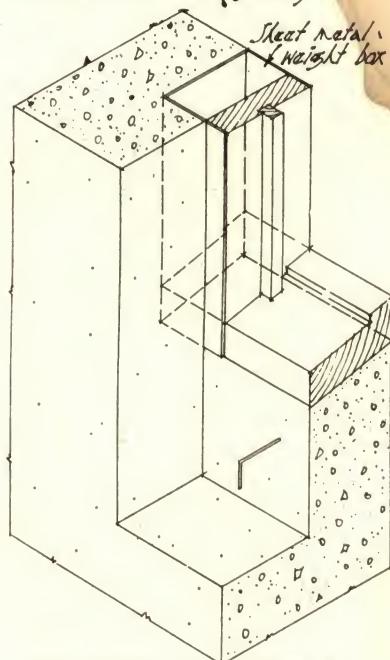
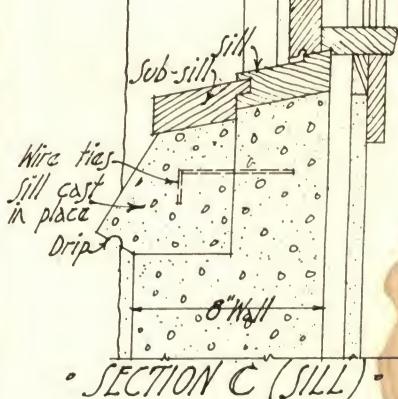
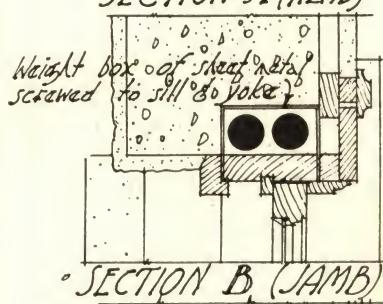
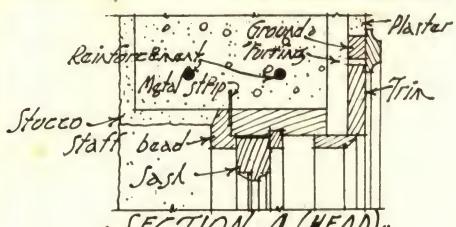


- SECTION - 2<sup>ND</sup> STORY - (8" WALLS) -

- DOUBLE - HUNG - WINDOWS  
- IN HOLLOW TILE WALLS -

CHICAGO HOUSING ASSOCIATION - CHAS. S. FROST, ARCH'T.  
3/8 inch to 1 foot; Sketches - SCALES - Sections, 1 1/2 inches to 1 foot.

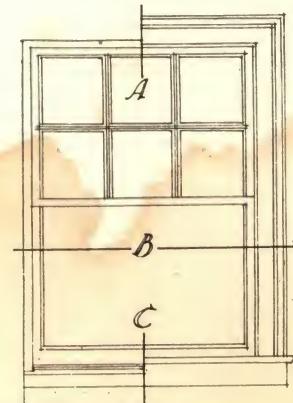




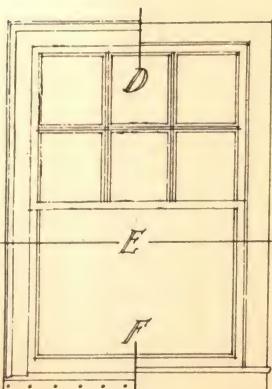
ISOMETRIC VIEW  
SHOWING WEIGHT BOX & HOOD SILL

FOR TYPE 1

(THIS TYPE OF FRAME WAS ORIGINATED  
BY MILTON DANA MORRILL, ARCHITECT)

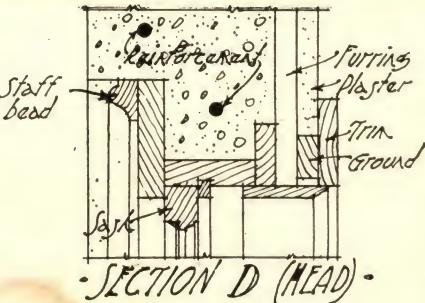


1/2 EXTERIOR - 1/2 INTERIOR  
• TYPE 1 •

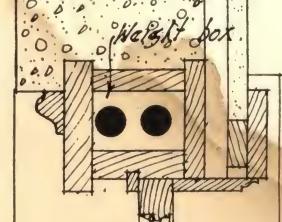


1/2 EXTERIOR - 1/2 INTERIOR  
• TYPE 2 •

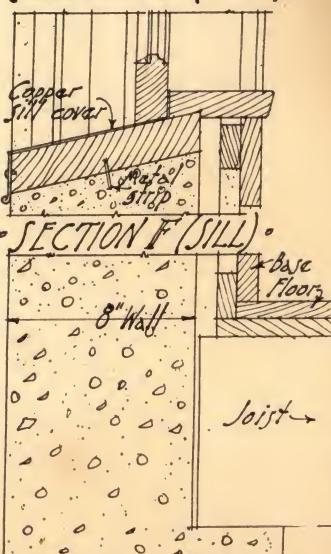
ELEVATIONS



• SECTION D (HEAD) •



• SECTION E (JAMB) •

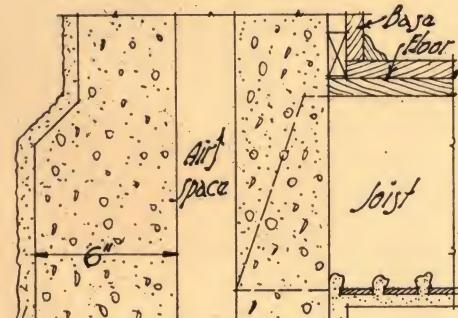
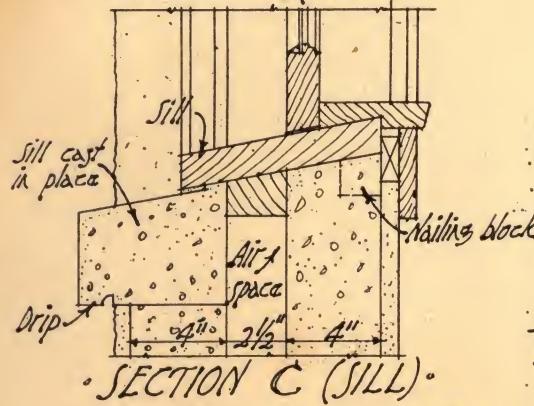
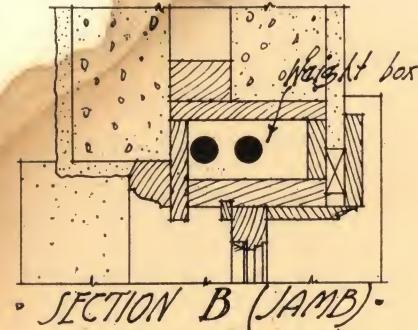
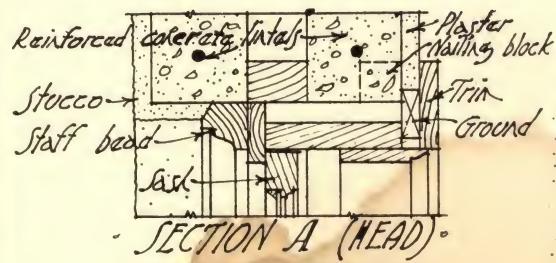


• WALL AT FLOOR •

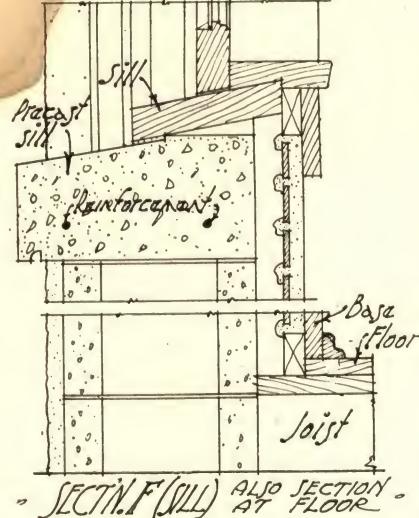
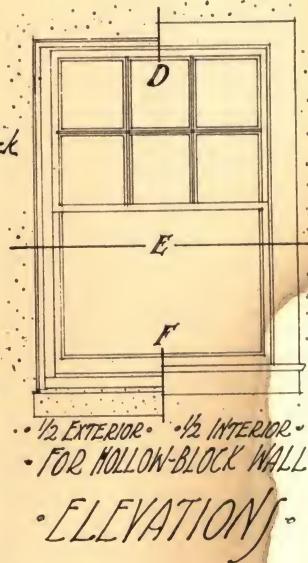
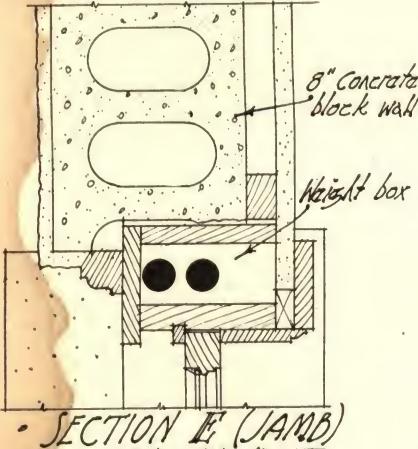
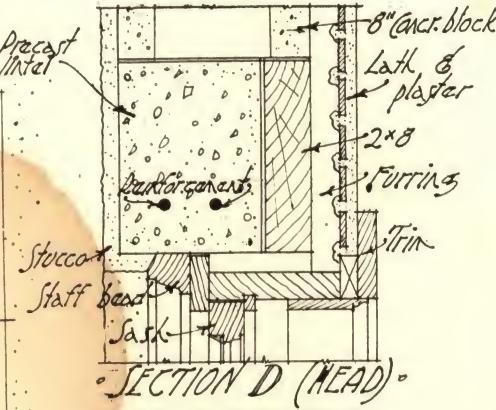
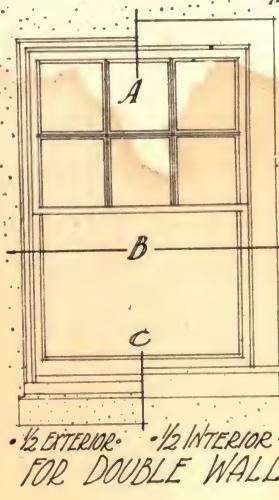
• FOR TYPE 2 •

DOUBLE HUNG  
WINDOWS FOR  
MONOLITHIC  
CONCRETE WALLS

THE ELEVATIONS ARE  $\frac{3}{8}$ -INCH SCALE  
THE DETAILS ARE  $1\frac{1}{2}$ -INCH SCALE

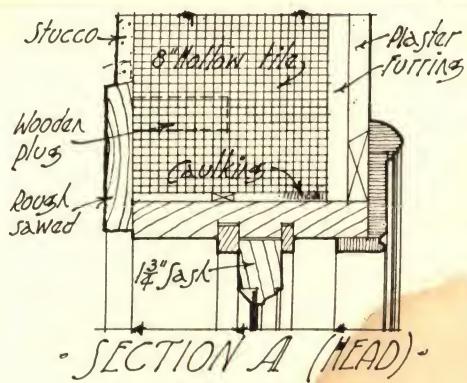


FOR DOUBLE WALLS.

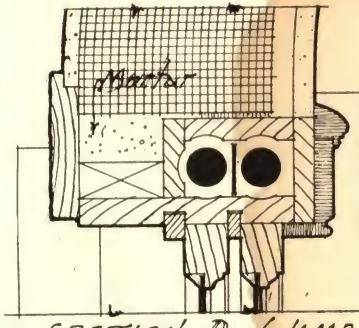


FOR HOLLOW-BLOCK WALLS.

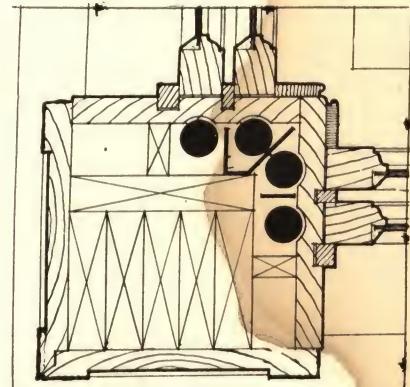
DOUBLE-HUNG WINDOWS FOR CONCRETE WALLS.  
THE ELEVATIONS ARE  $\frac{3}{8}$ -INCH SCALE. THE SECTIONS ARE  $\frac{1}{2}$ -INCH SCALE.



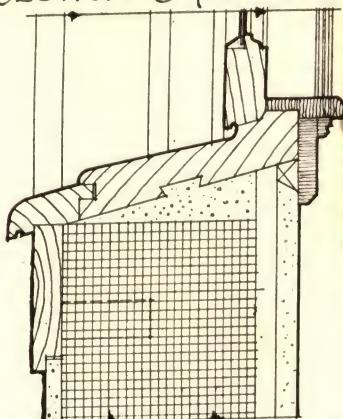
SECTION A (HEAD)



SECTION B (JAMB)



SECTION C (CORNER MULLION)

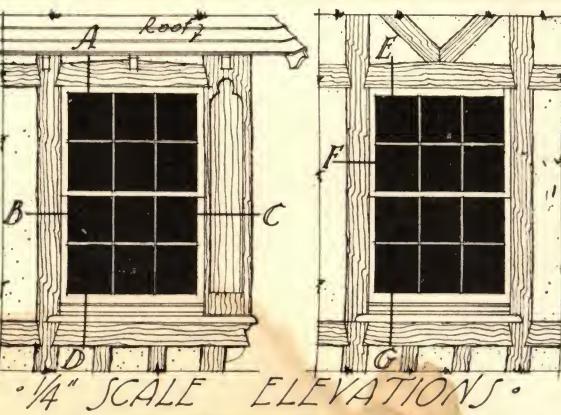


SECTION D (SILL)

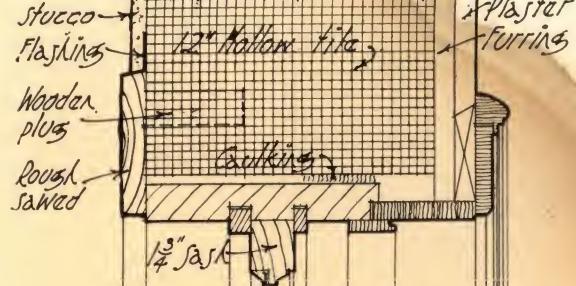
FOR 8" HOLLOW TILE WALLS.

DOUBLE HUNG WINDOWS FOR HALF-TIMBER WALLS.

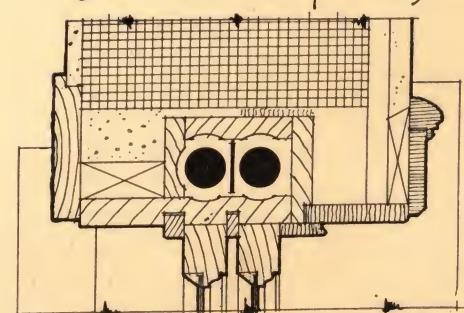
1/2 - INCH



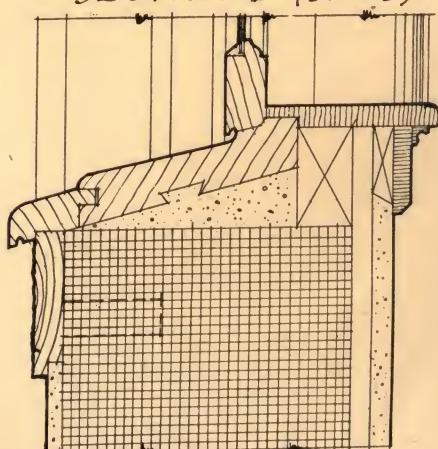
1/4" SCALE ELEVATIONS



SECTION E (HEAD)



SECTION F (JAMB)

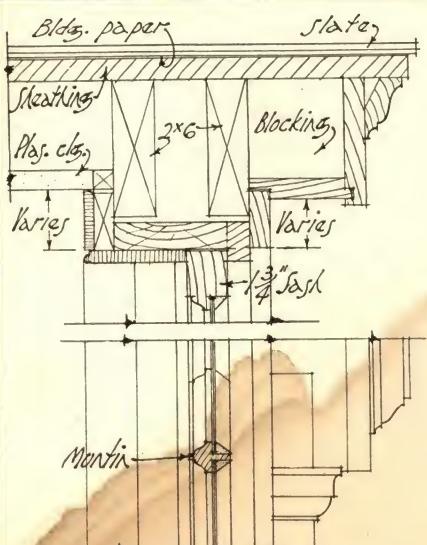


SECTION G (SILL)

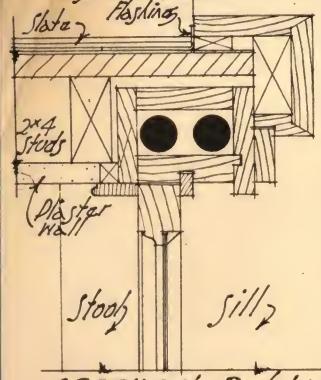
FOR 12" HOLLOW TILE WALLS.

DOUBLE HUNG WINDOWS FOR HALF-TIMBER WALLS.

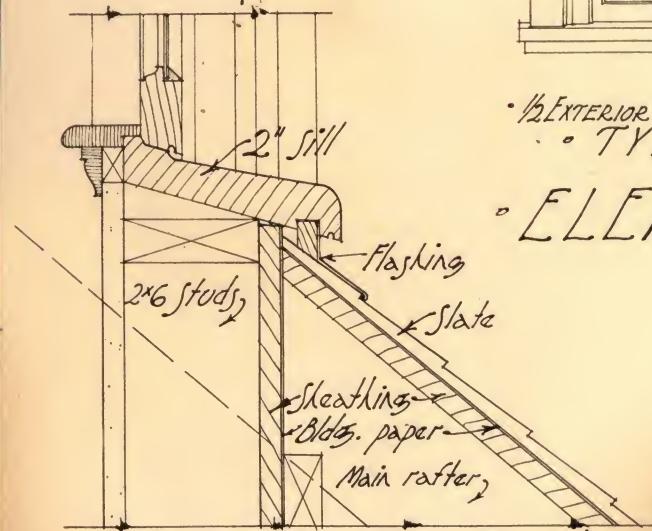
SCALE



• SECTION A (HEAD).  
• ALSO A PART ELEV. & UPPER JAMB.



• SECTION B (JAMB).

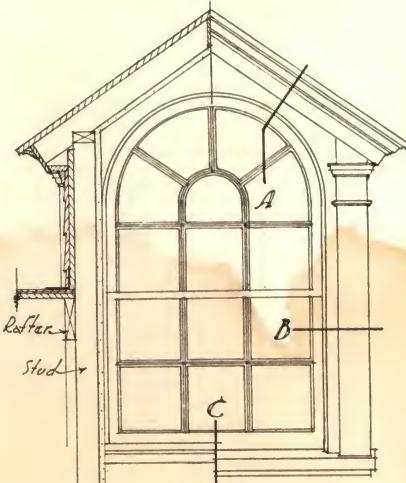


• SECTION C (SILL).

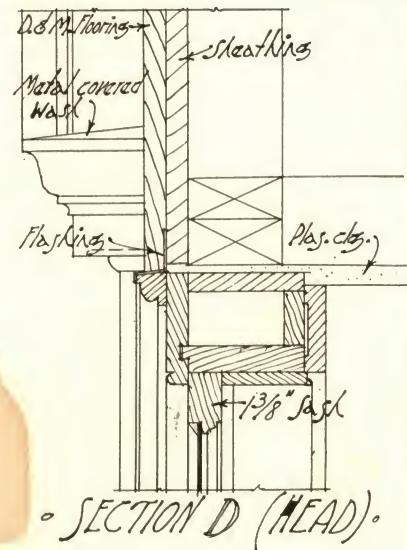
• FOR TYPE 1 •

## • DORMER WINDOWS •

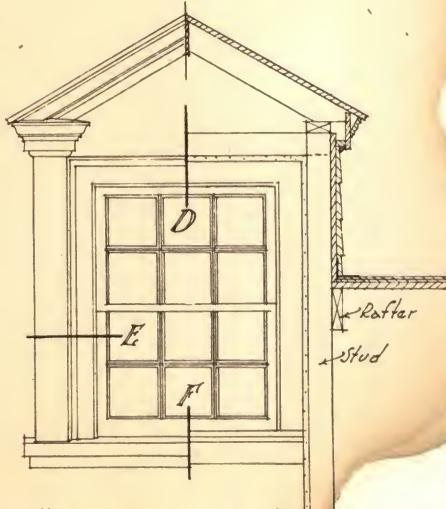
• THE ELEVATIONS ARE  $\frac{3}{8}$ -INCH SCALE • THE SECTION'S ARE  $\frac{1}{2}$ -INCH SCALE •



•  $\frac{1}{2}$  EXTERIOR. •  $\frac{1}{2}$  INTERIOR.  
• TYPE 1 •

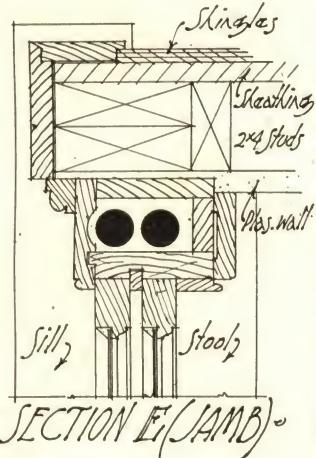


• SECTION D (HEAD).

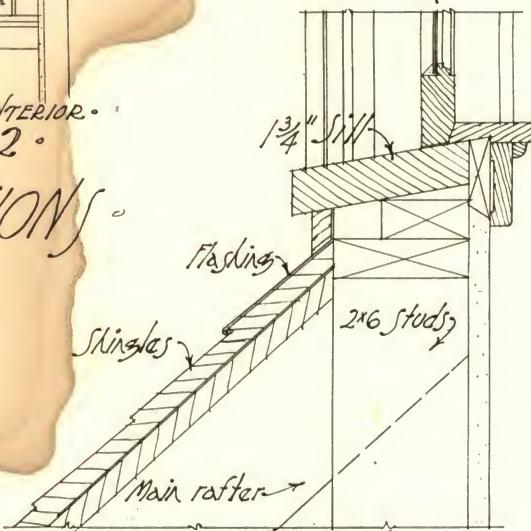


•  $\frac{1}{2}$  EXTERIOR. •  $\frac{1}{2}$  INTERIOR.  
• TYPE 2 •

## • ELEVATIONS •

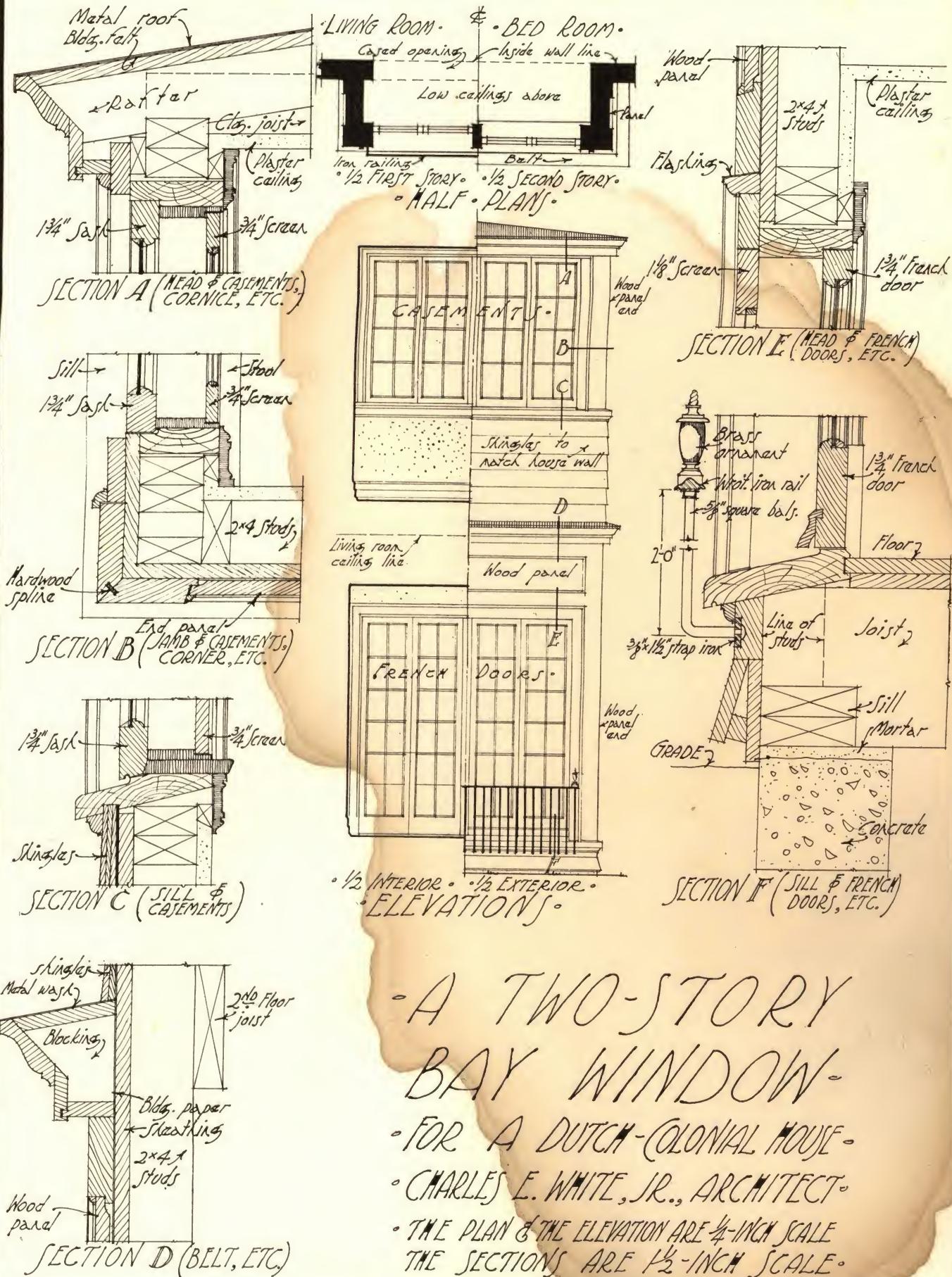


• SECTION E (JAMB).



• SECTION F (SILL).

• FOR TYPE 2 •

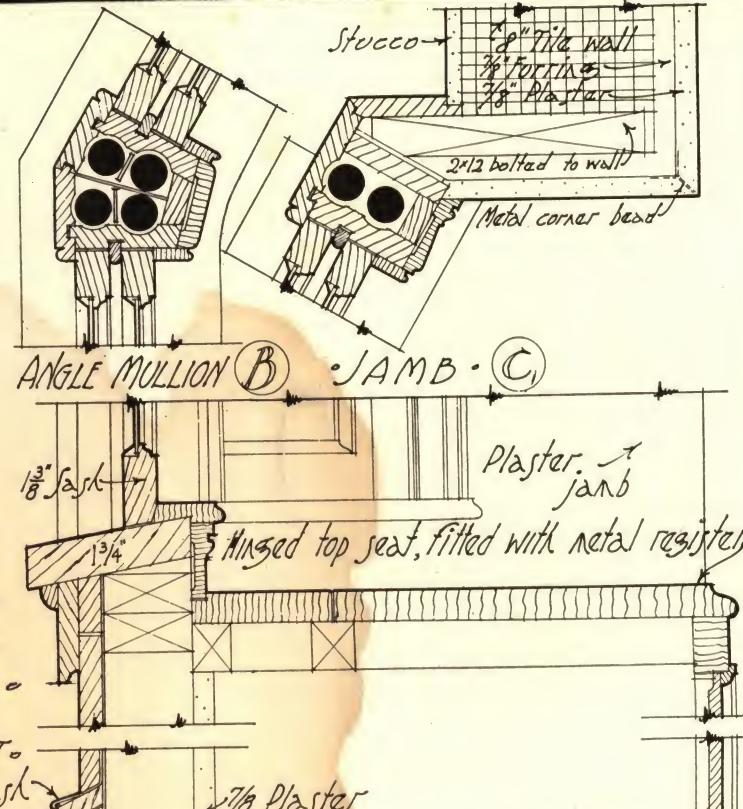
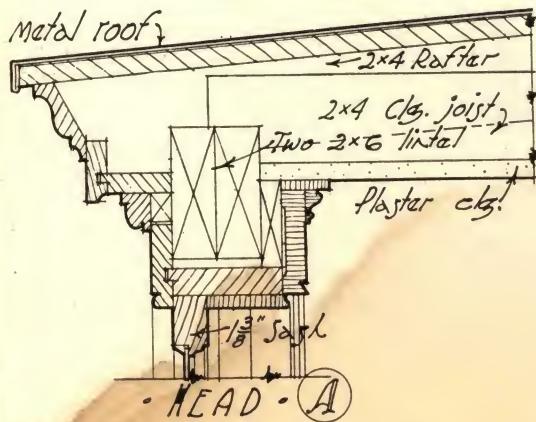


# A TWO-STORY BAY WINDOW

## •FOR A DUTCH-COLONIAL HOUSE•

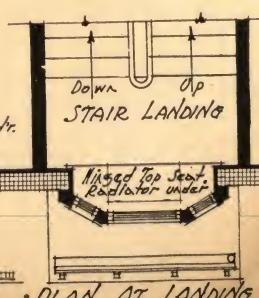
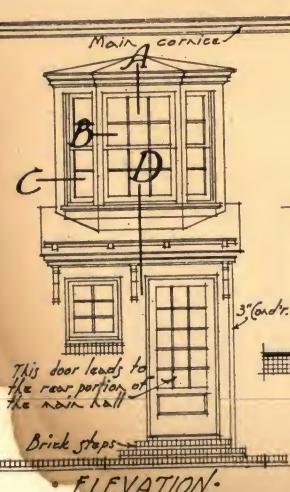
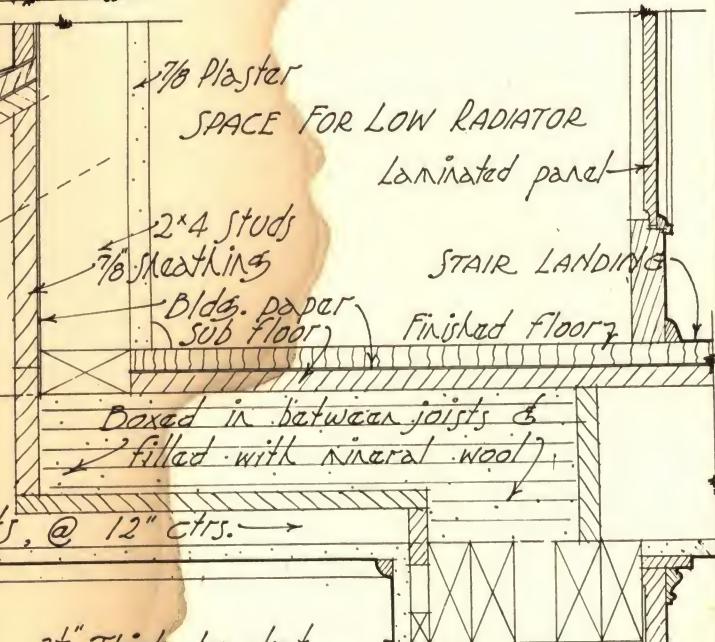
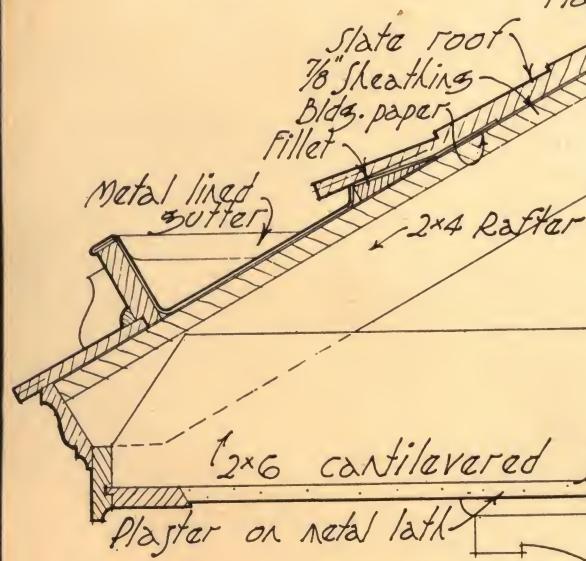
CHARLES E. WHITE, JR., ARCHITECT

- THE PLAN & THE ELEVATION ARE  $\frac{1}{4}$ -INCH SCALE  
THE SECTIONS ARE  $\frac{1}{2}$ -INCH SCALE.

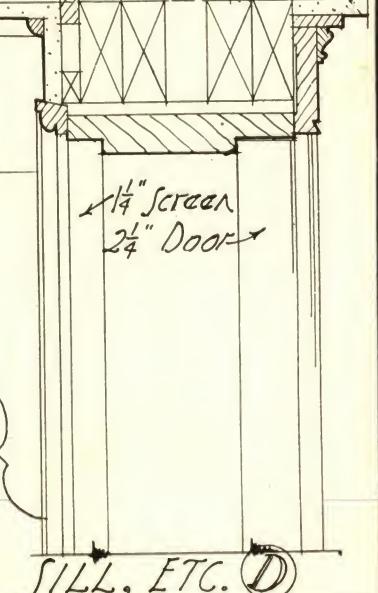


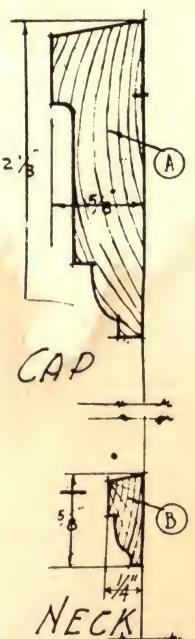
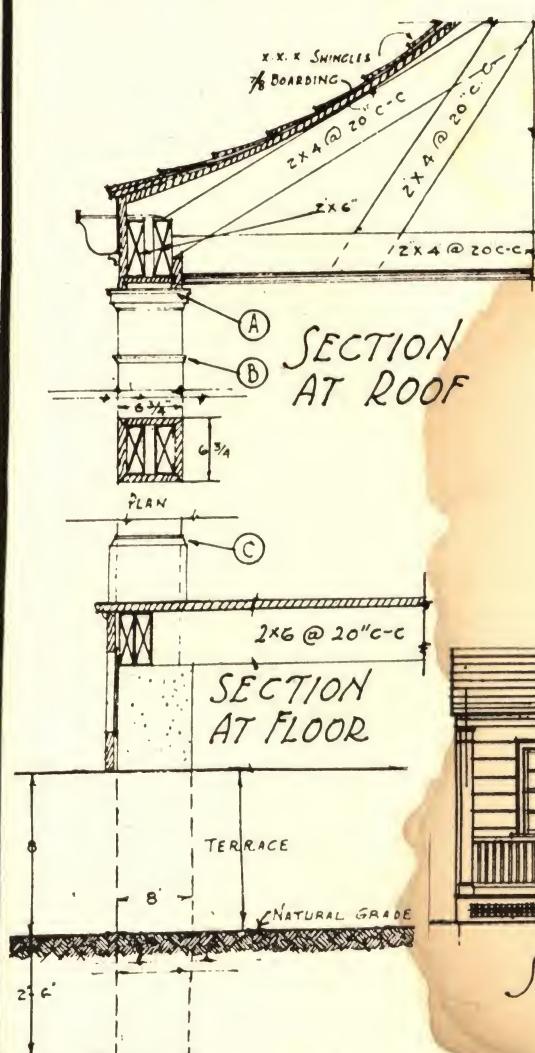
## A BAY WINDOW FOR A STAIR LANDING.

JIM T. POMEROY, ARCHITECT.

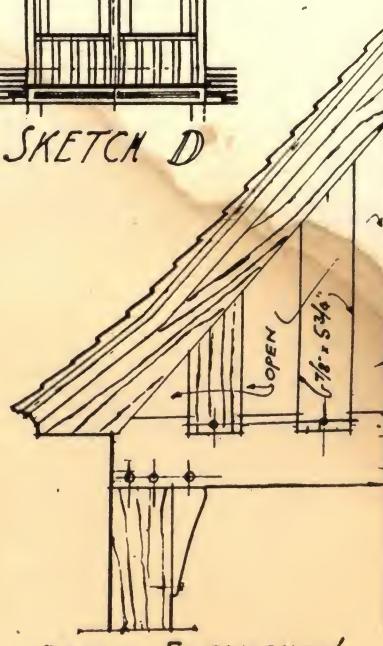


THE PLAN & ELEVATION  
ARE  $\frac{1}{8}$ -INCH SCALE.  
THE DETAILS ARE  $\frac{1}{2}$ -INCH  
SCALE.

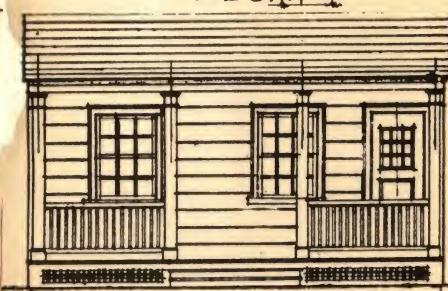




SKETCH D

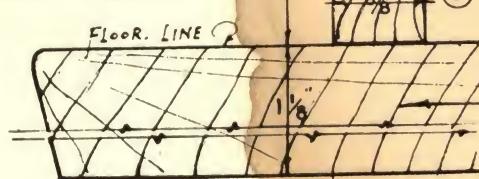


PART ELEVATION

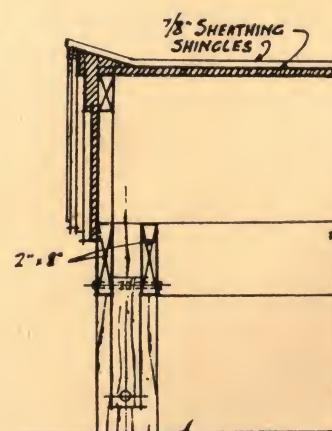


SKETCH C

THREE-FOURTHS  
SIZE DETAILS  $\phi$   
COL. CAP & BASE

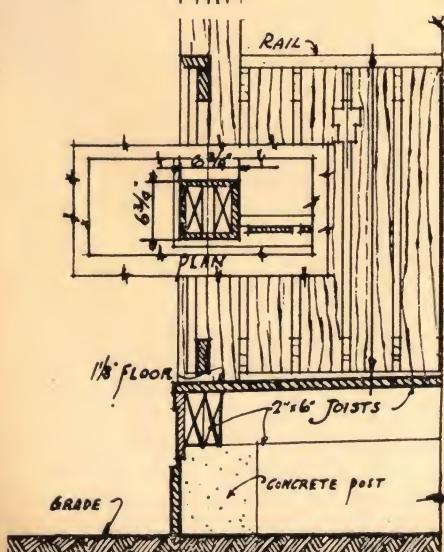
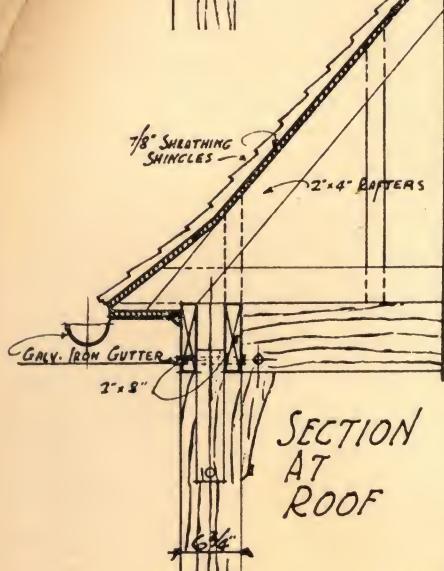
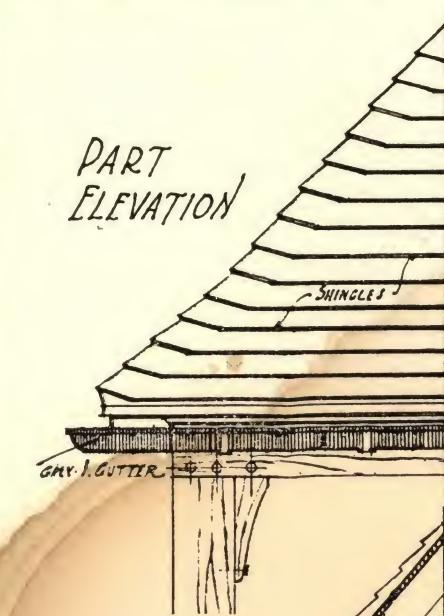


DETAILS - PORCH C

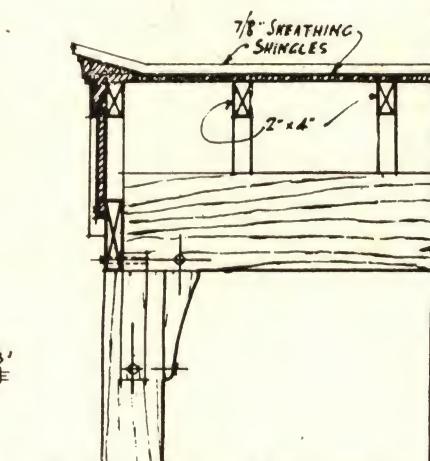
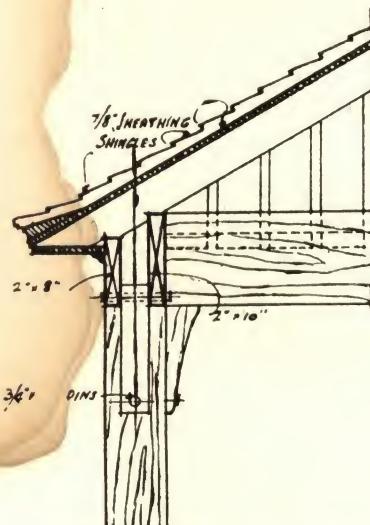
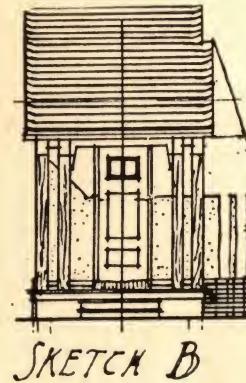
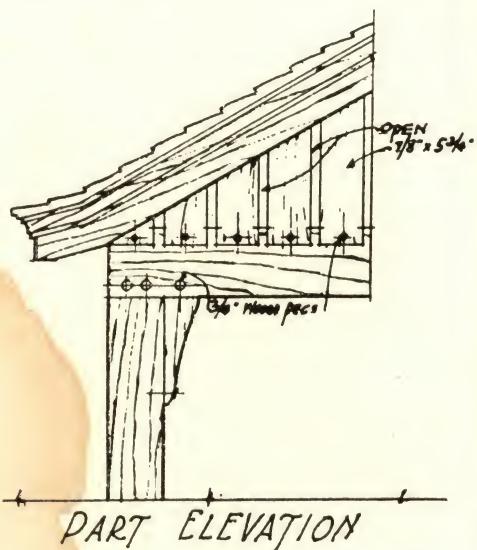
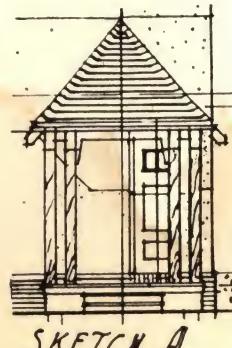


SECTION AT RAKE  
DETAILS - PORCH D

• P O R C H E S •  
• ONTARIO • HOUSING • COMMITTEE •  
• 1' 2' 3' DETAILS SCALES SKETCHES • 5' 10' 15'



DETAILS - PORCH A



DETAILS - PORCH B

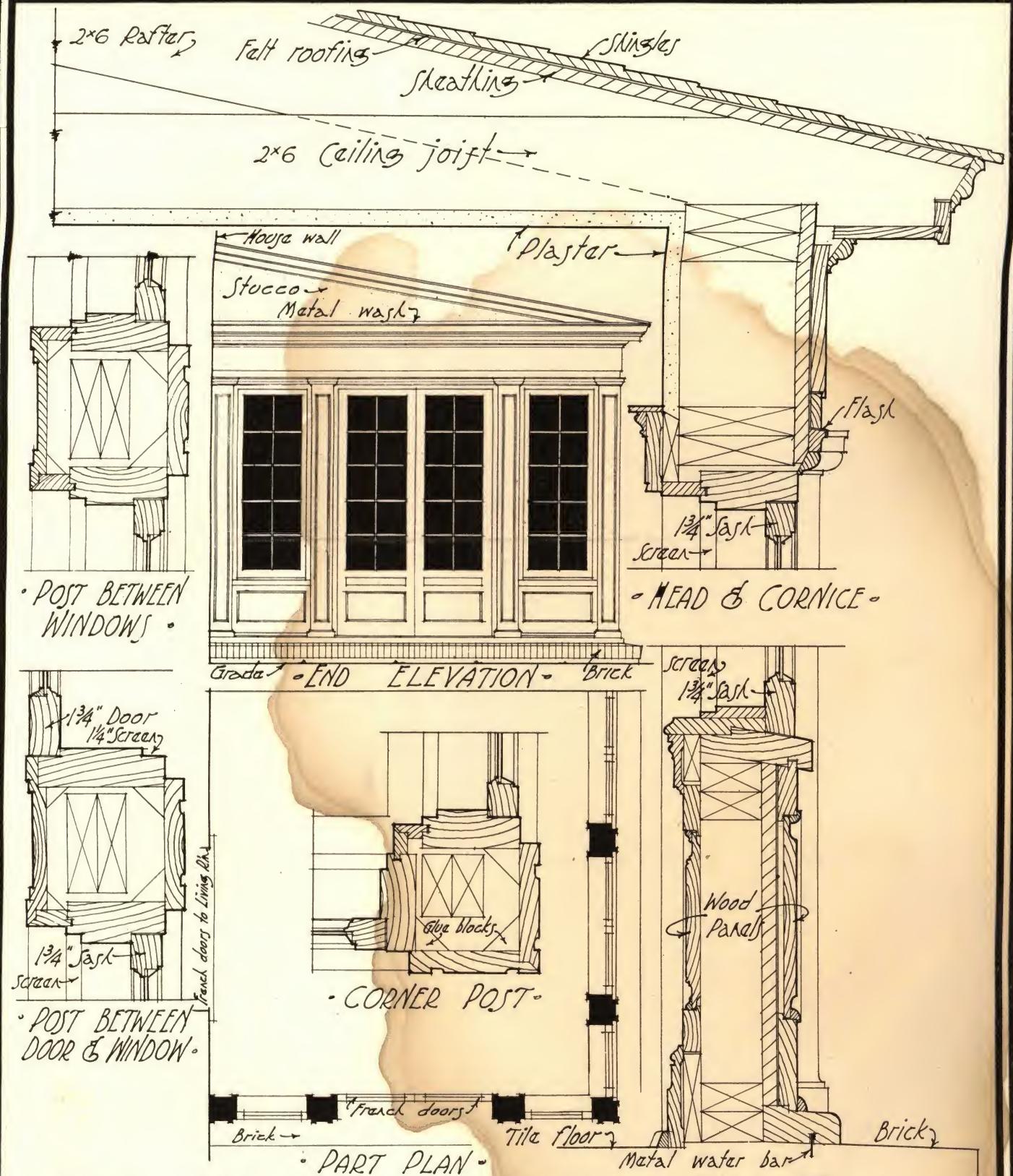
## PORCHES.

ONTARIO  
HOUSING  
COMMITTEE

SCALES:

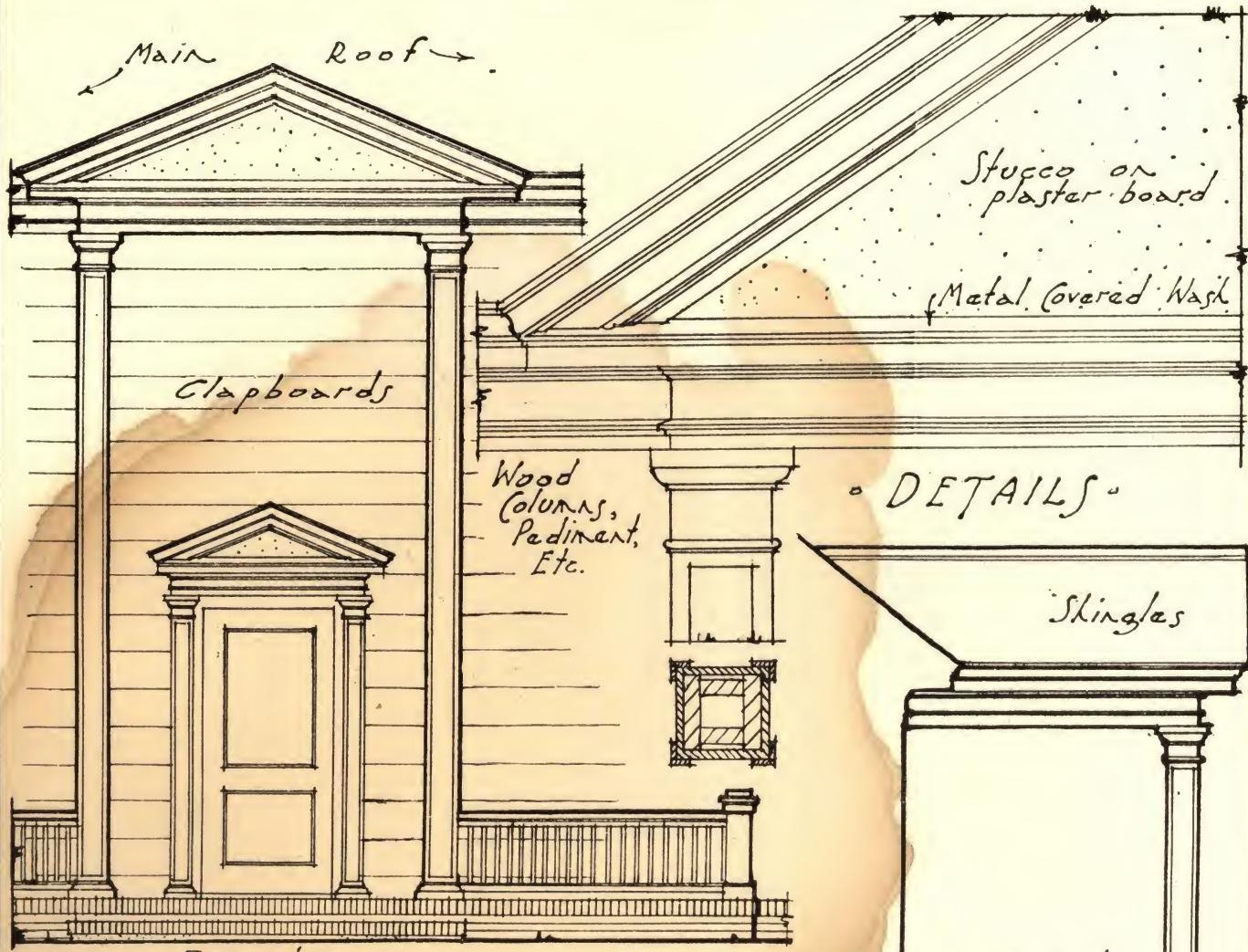
DETAILS 0' 1' 2' 3'

SKETCHES 5' 10' 15'

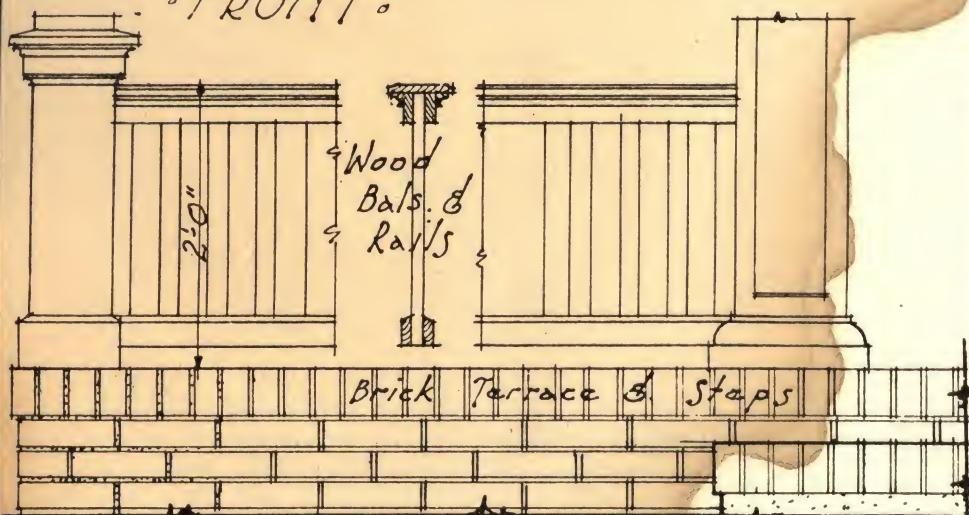


• A LIVING PORCH •

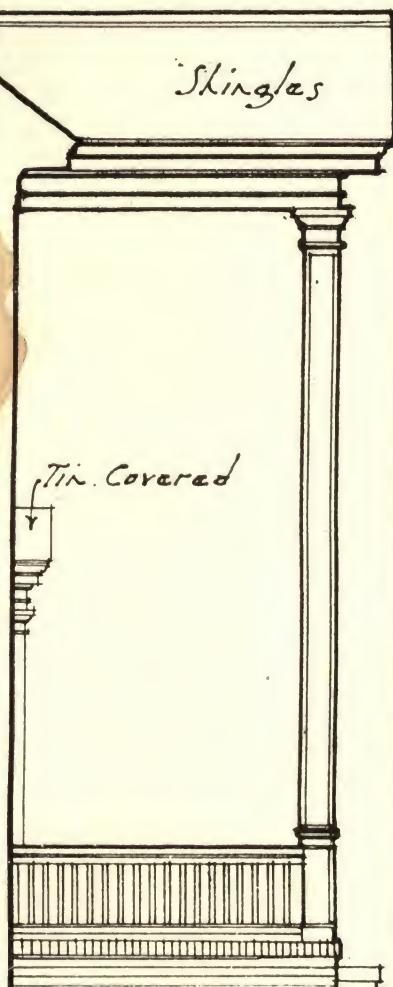
CHARLES E. WHITE, JR., ARCH'T.



• FRONT •

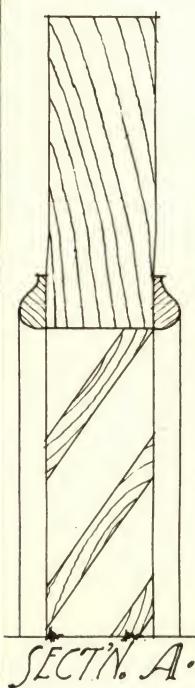


• DETAILS •

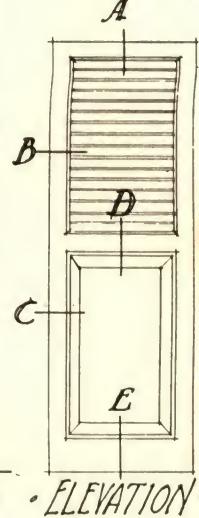


• SIDE •

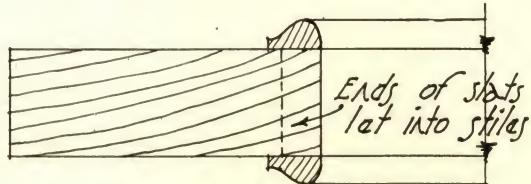
BUCKEYE BLDG.  
CO., ARCH'TS. • AN ENTRANCE PORCH • AT MANSFIELD  
OHIO  
1/4 inch to 1 foot. - Elevations • SCALES • Details - 3/4 inch to 1 foot



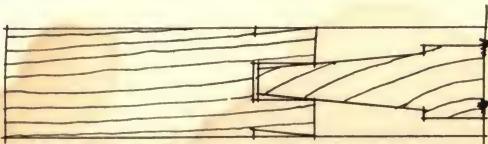
SECTN. A.



ELEVATION.

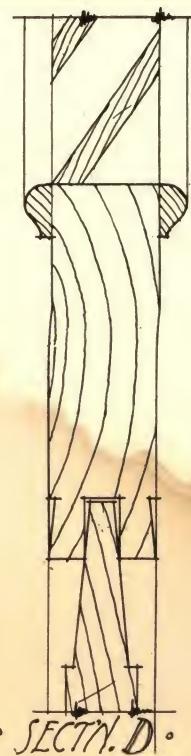


SECTION B

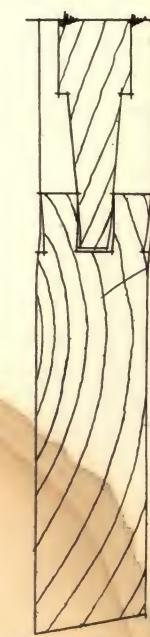


SECTION C

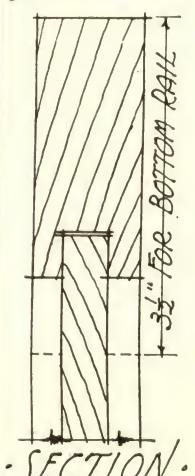
• COMBINATION  
BLIND-SHUTTER •  
ALL SLATS STATIONARY



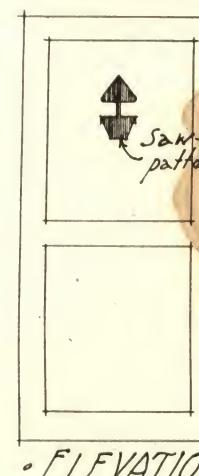
SECTN. D.



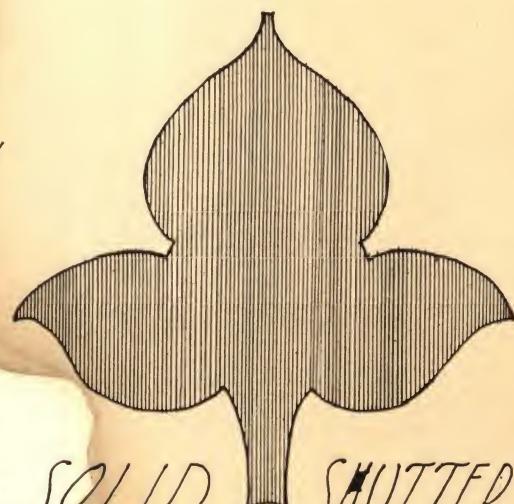
SECTN. E.



SECTION.

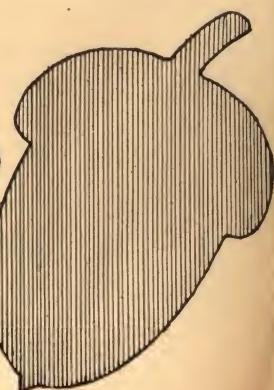
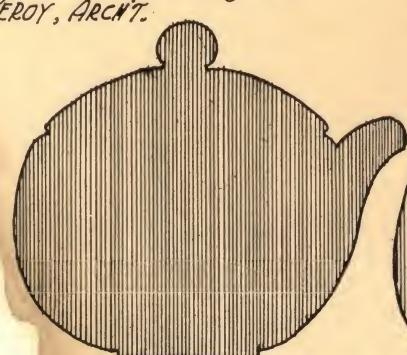
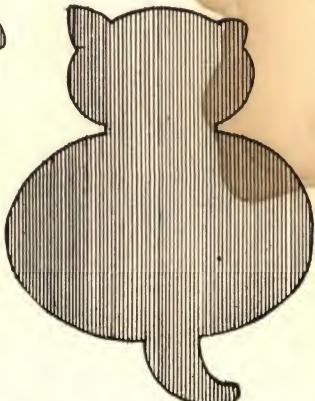
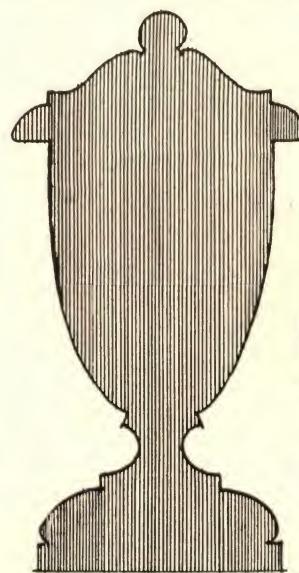


ELEVATION.

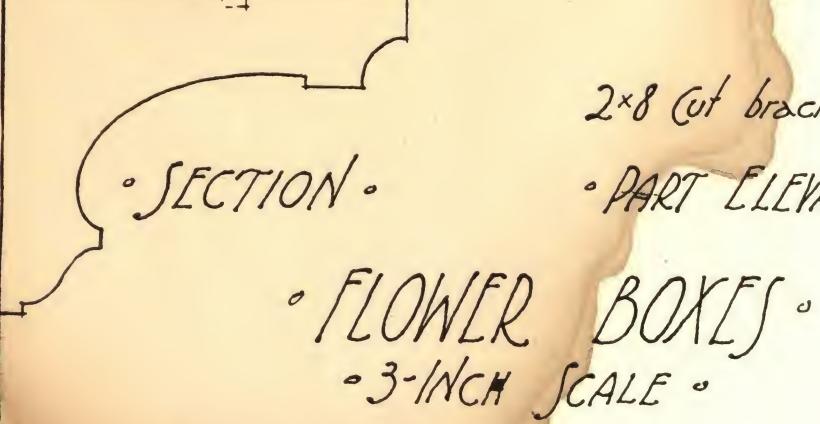
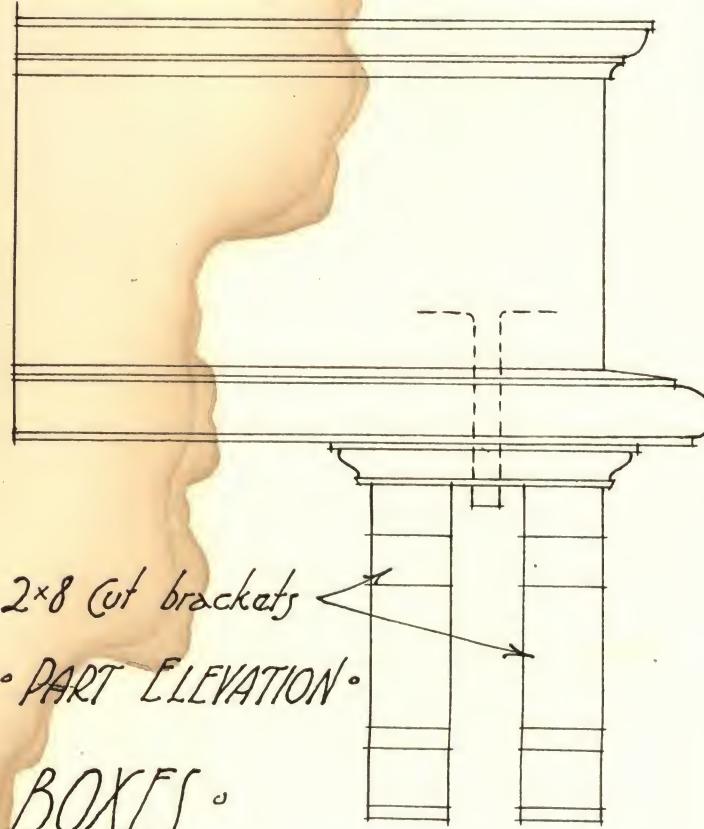
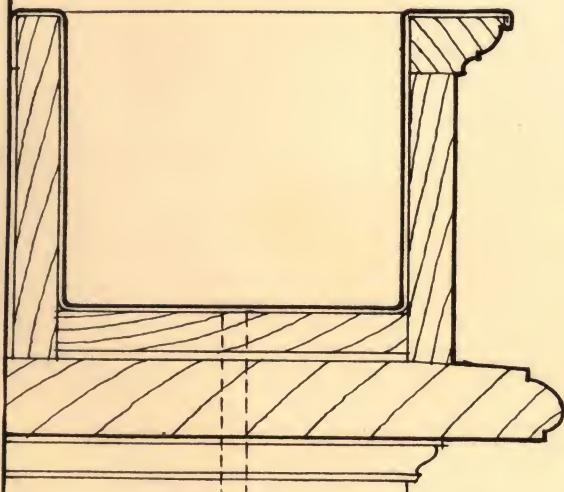
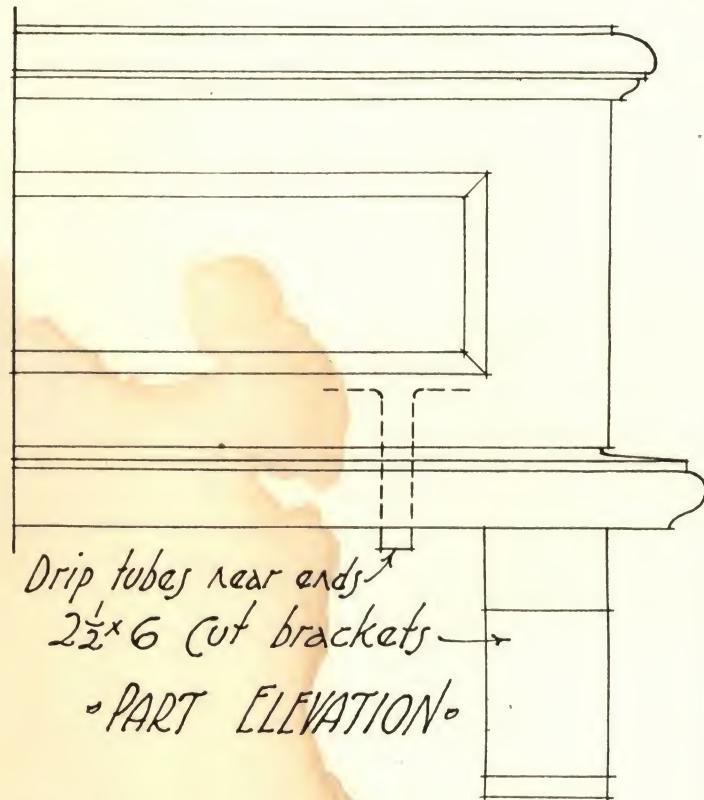


SOLID SHUTTERS • ELEVATION. • SECTION.

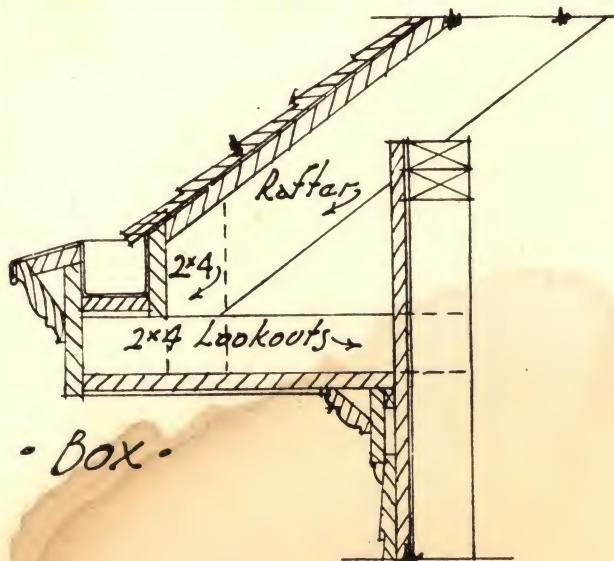
ALL SECTIONS ARE HALF SIZE  
JIM T. POMEROY, ARCH'T.



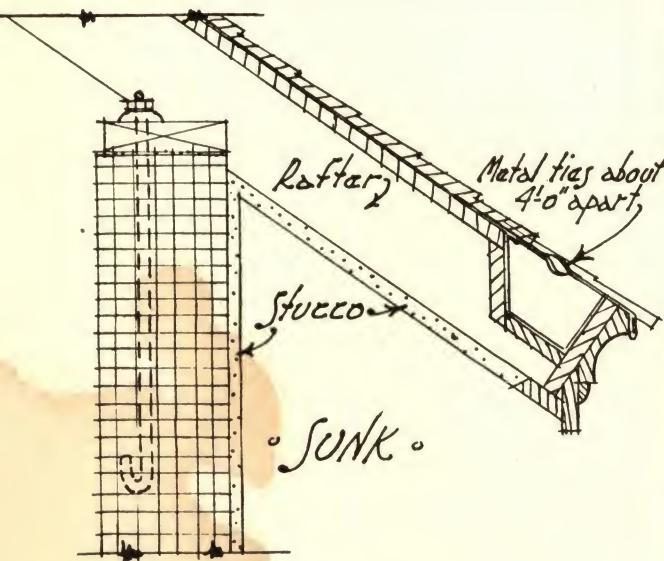
• SAW-CUT PATTERNS.  
• HALF SIZE •



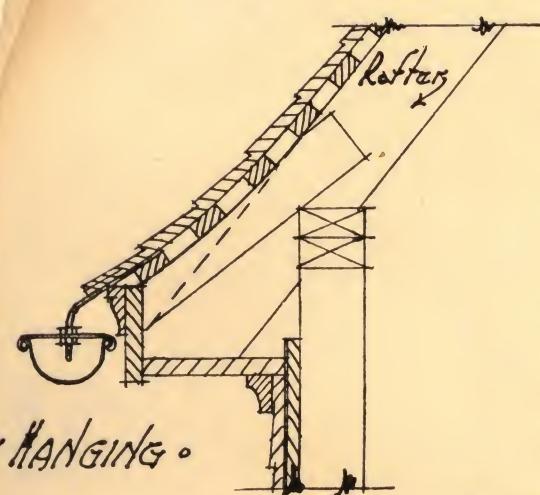




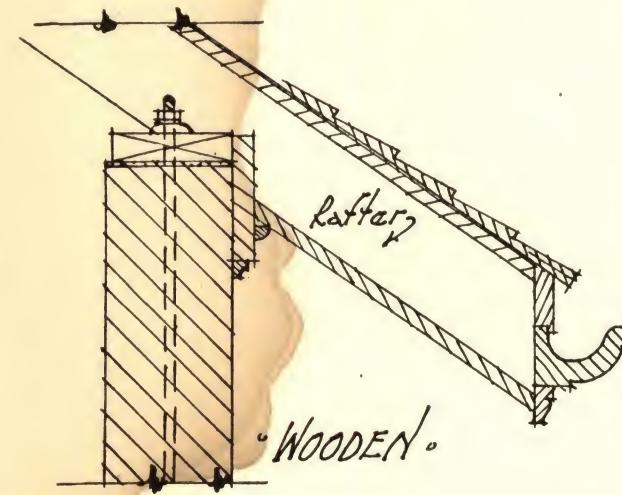
• BOX •



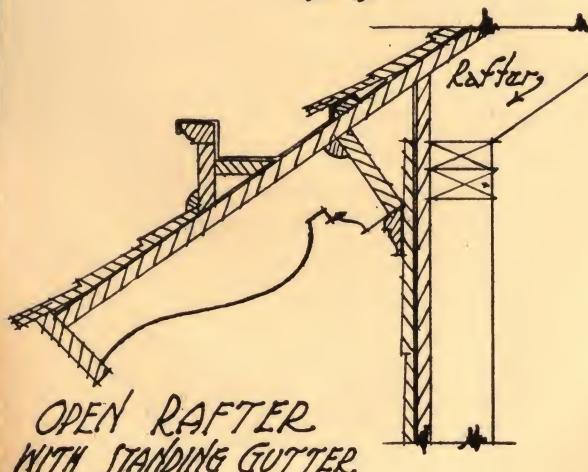
• SUNK •



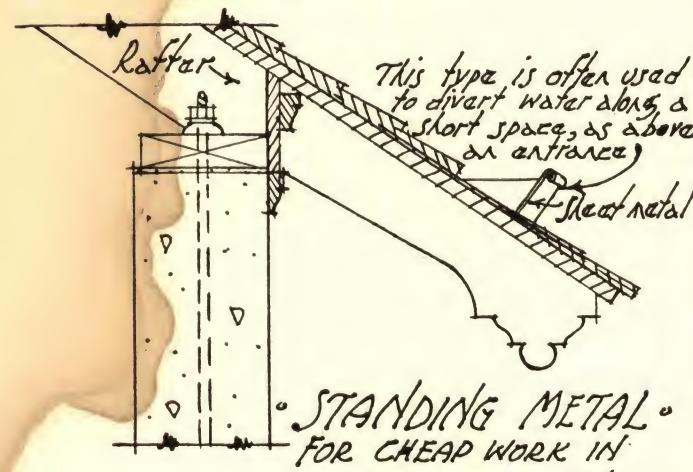
• HANGING •



• WOODEN •

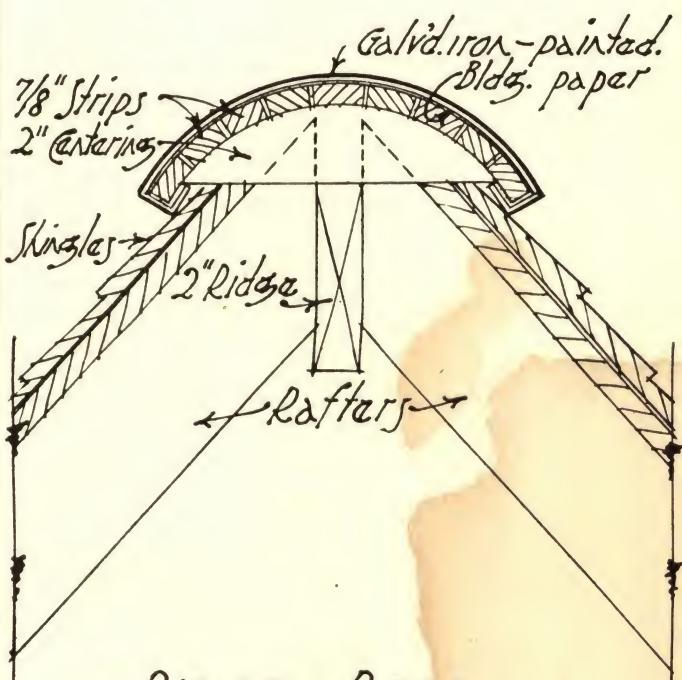


OPEN RAFTER  
WITH STANDING GUTTER



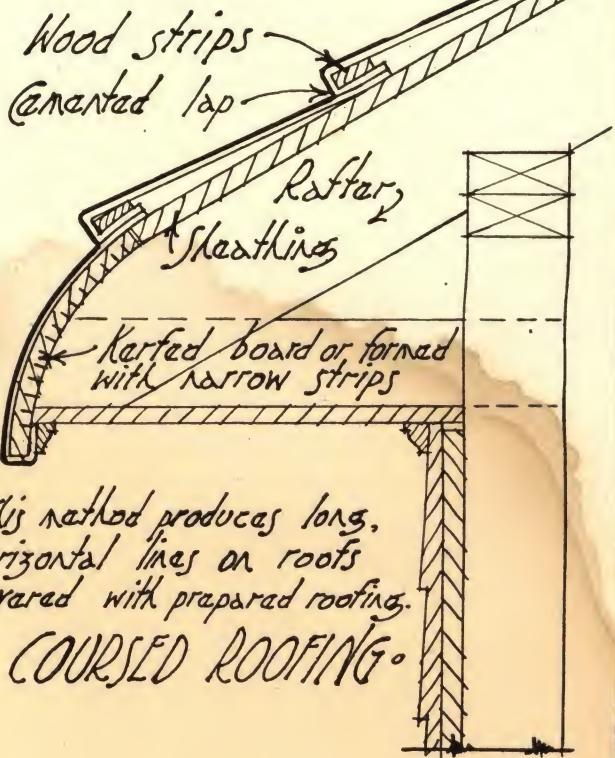
• STANDING METAL •  
FOR CHEAP WORK IN  
CLIMATES WITHOUT SNOW

• GUTTERS & CORNICES •  
• ONE INCH SCALE •

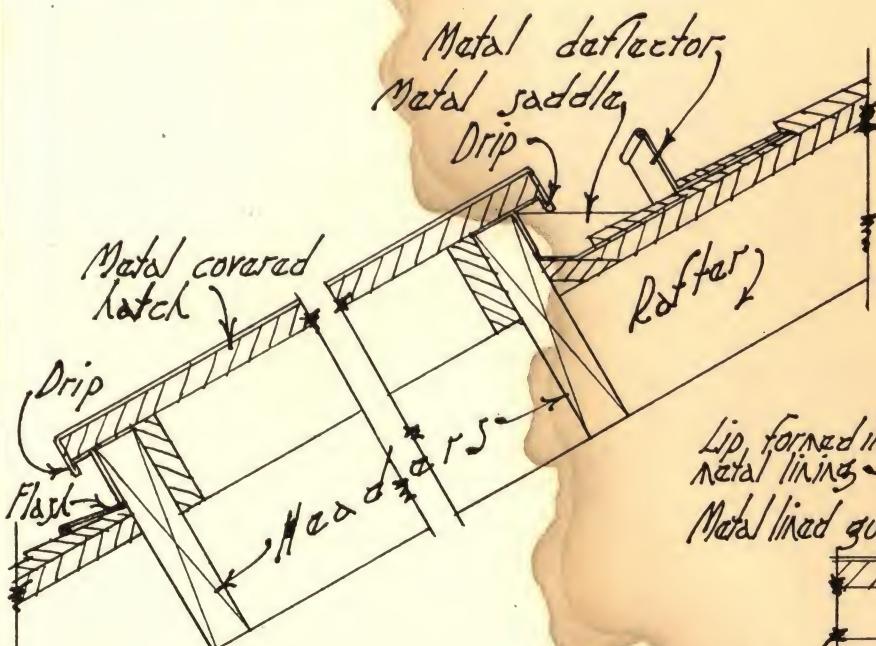


• RIDGE ROLL •  
MURPHY & DANA, ARCHTS.

Prepared roofing split lengthwise in 18" widths,



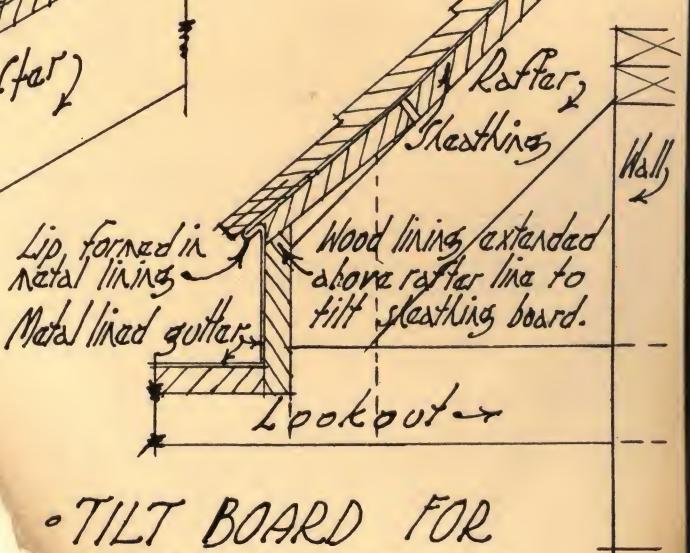
• COURSED ROOFING •

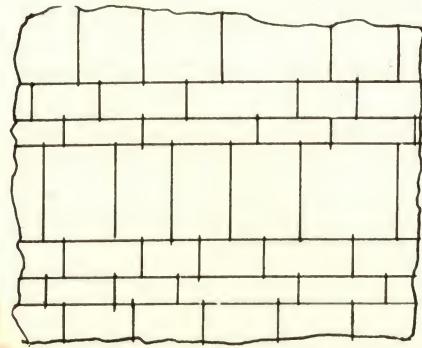
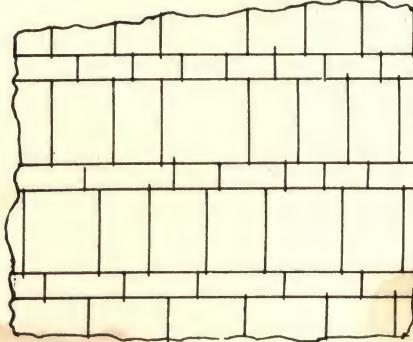
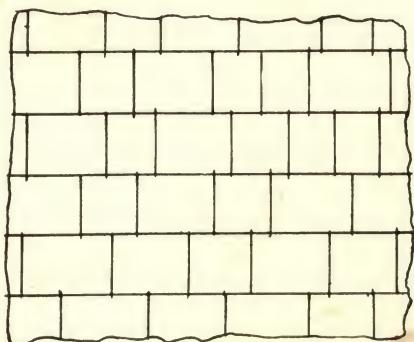


• WEATHERPROOFING FOR A  
ROOF SCUTTLE OR HATCH •

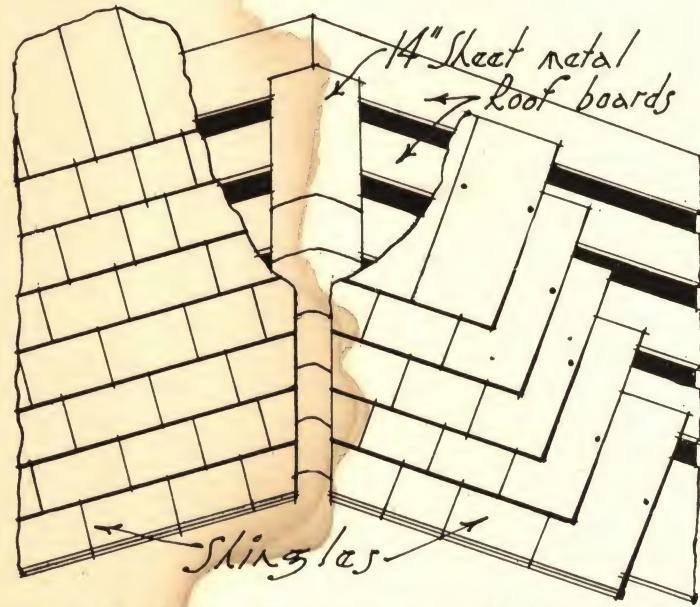
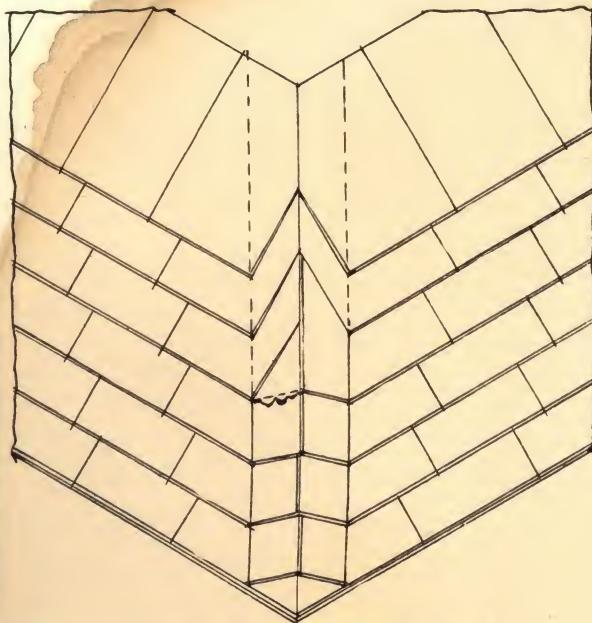
• TILT BOARD FOR  
EAVE OR GUTTER •

• ROOF DETAILS •  
• 1/2-INCH SCALE •

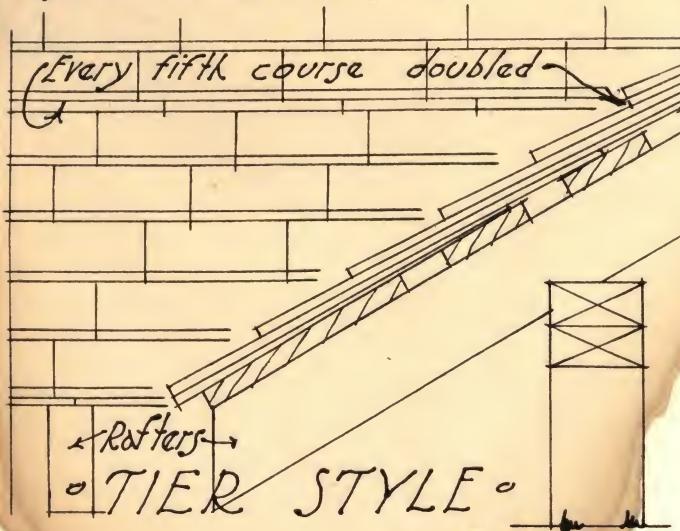




• 5 INCHES TO WEATHER. • 2-7 INCHES TO WEATHER. • 3-2-8 INCHES TO WEATHER.  
• METHODS & LAYING 16" SHINGLES ON WALLS.

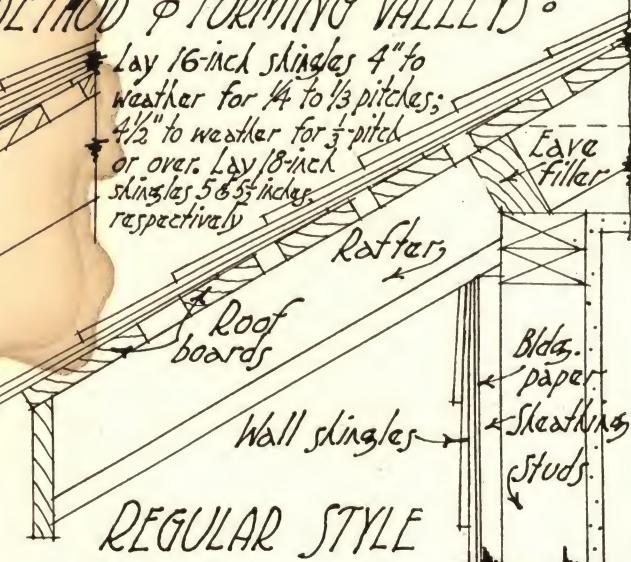


“BOSTON” OR RESSHINGLED HIP.



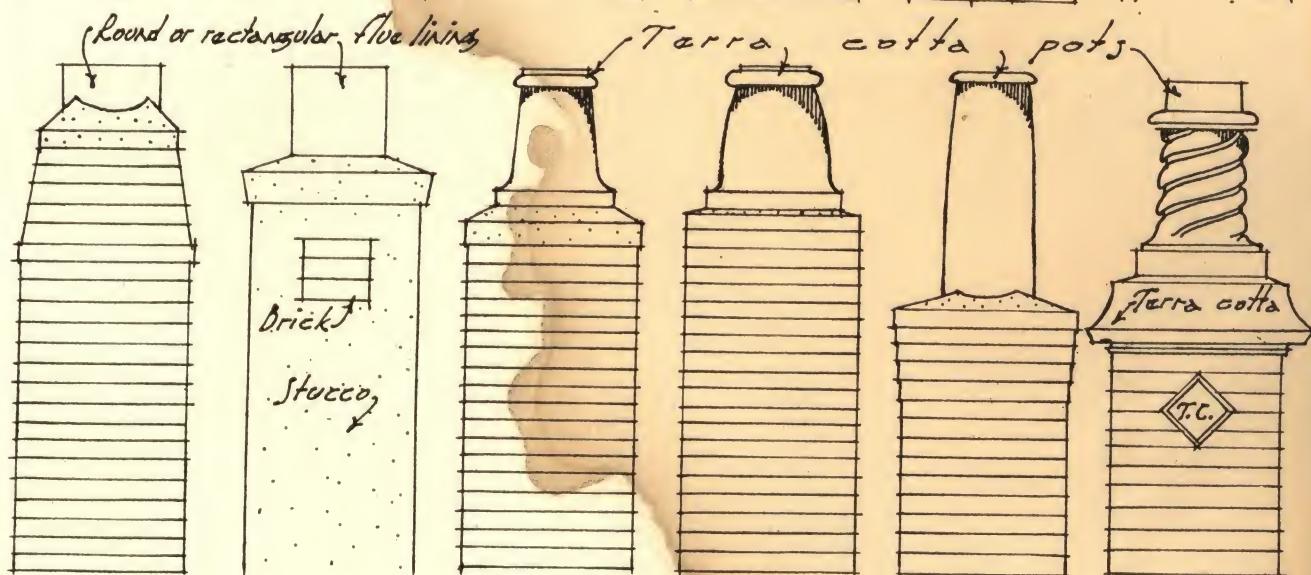
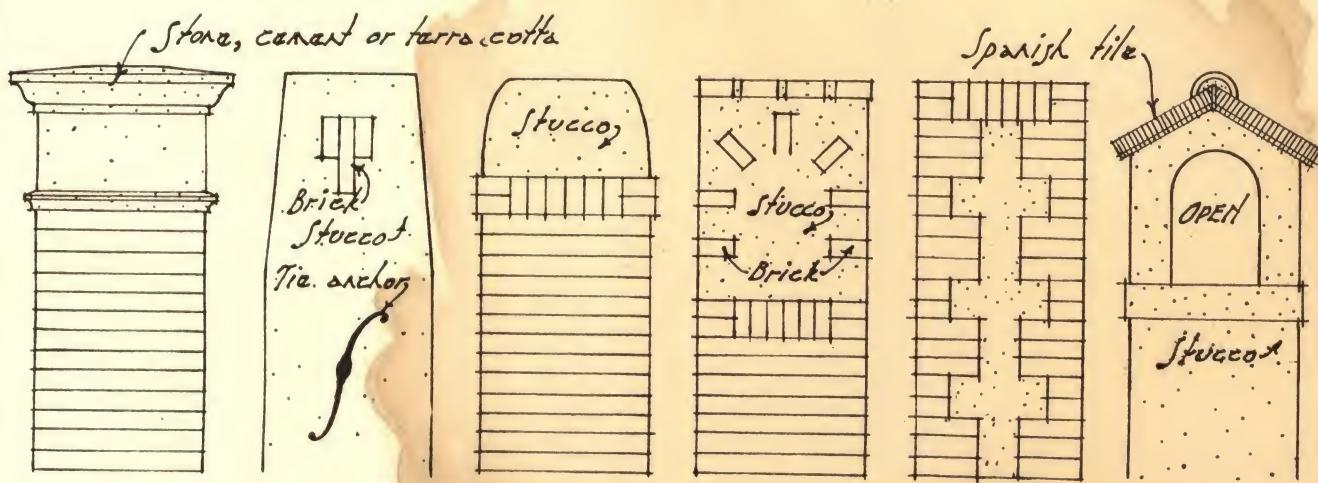
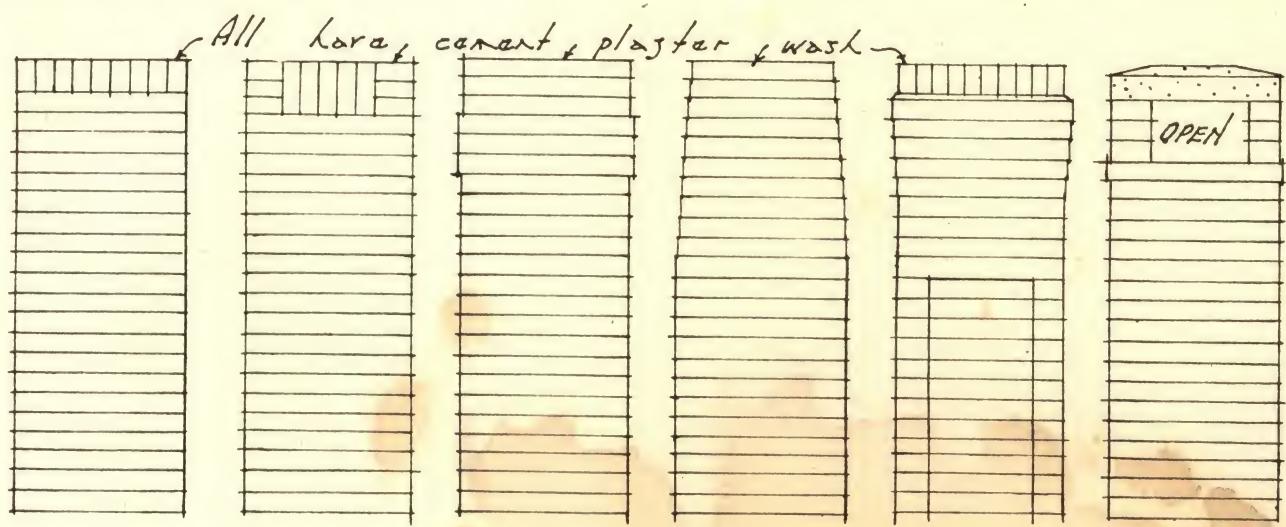
• METHOD & FORMING VALLEYS.

Lay 16-inch shingles 4" to weather for  $\frac{1}{4}$  to  $\frac{1}{3}$  pitches; 4 $\frac{1}{2}$ " to weather for  $\frac{1}{2}$  pitch or over. Lay 18-inch shingles 5 $\frac{1}{2}$  to 6 $\frac{1}{2}$  inches, respectively.

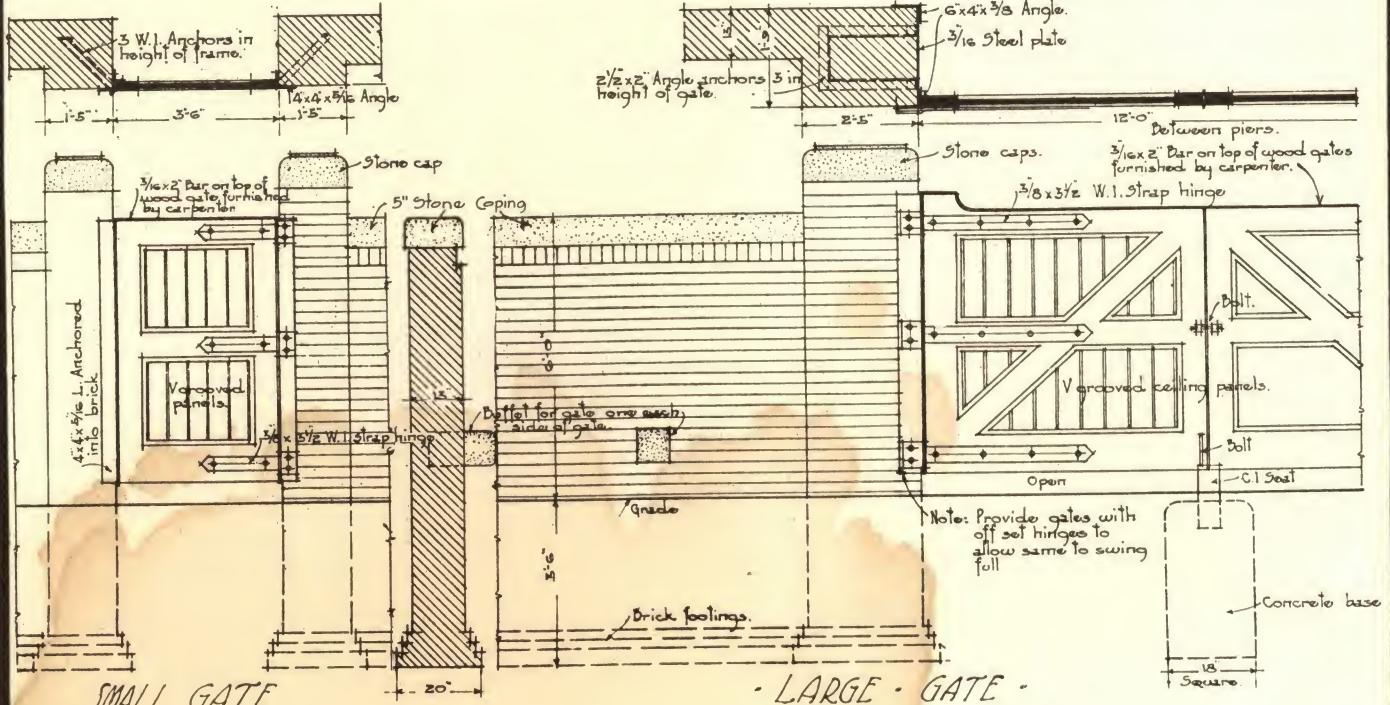


• TIER STYLE.

• SHINGLING.



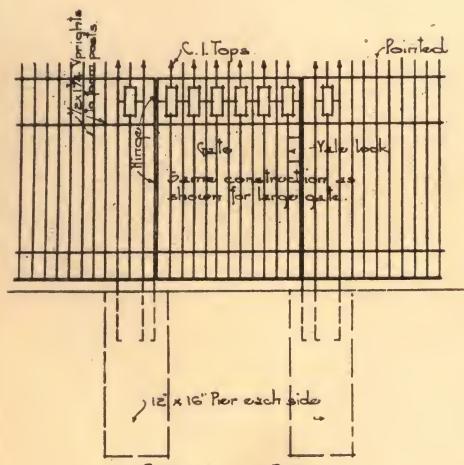
• CHIMNEY TOPS •  
• 1/2-INCH SCALE •



SMALL GATE

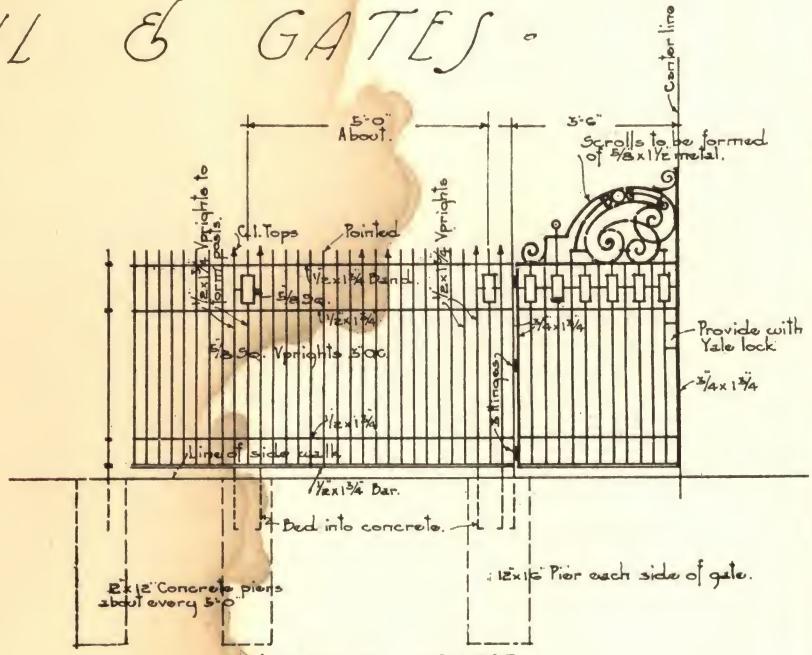
LARGE GATE

• BRICK WALL & GATES •



SMALL GATE

IRON FENCE



LARGE GATE

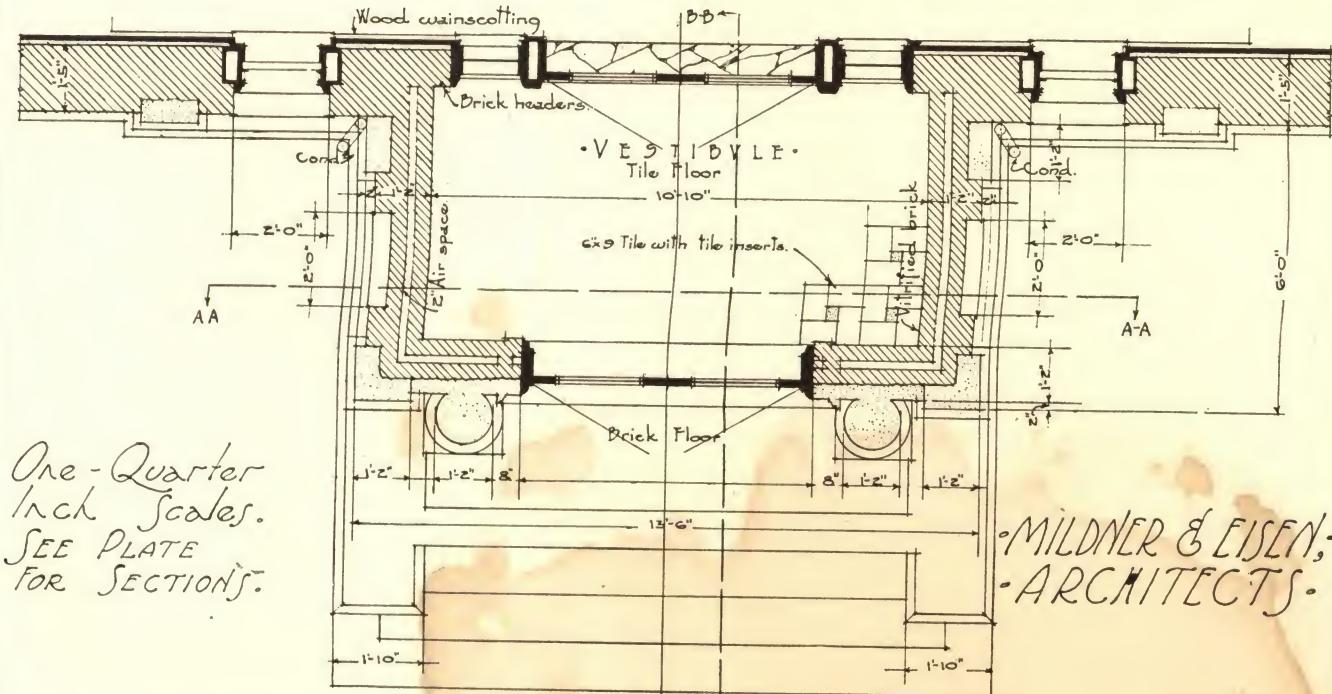
& GATES •

• A BRICK WALL, IRON FENCE & GATES •

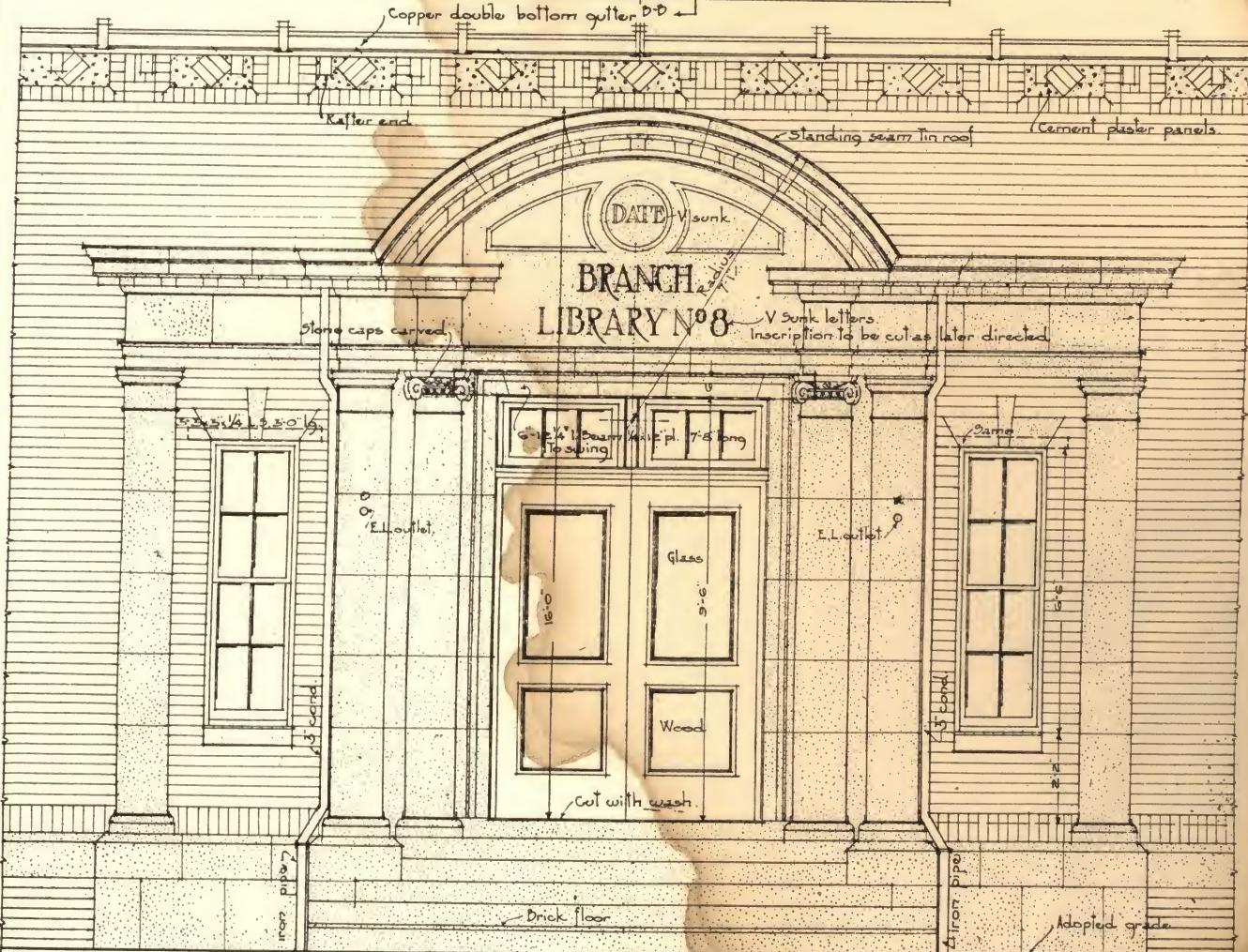
• AT DETROIT, MICHIGAN •

• One Quarter Inch Scale •

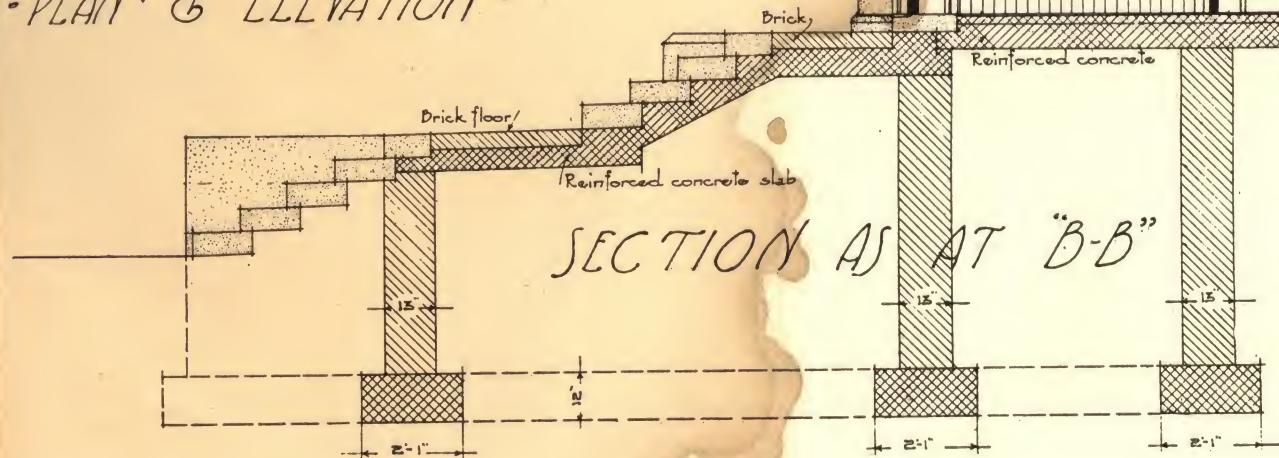
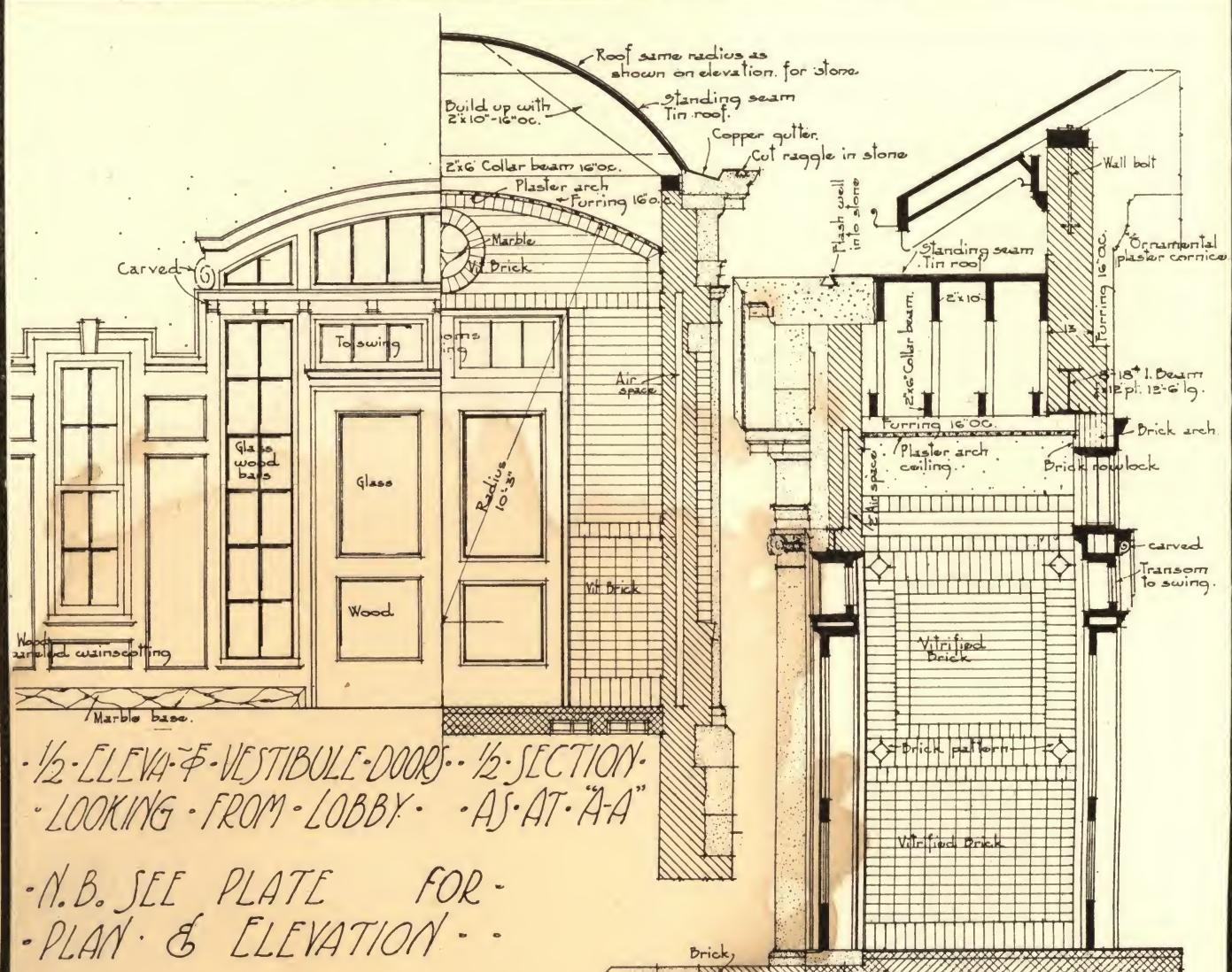
• MILDNER & EISEN, ARCHITECTS •



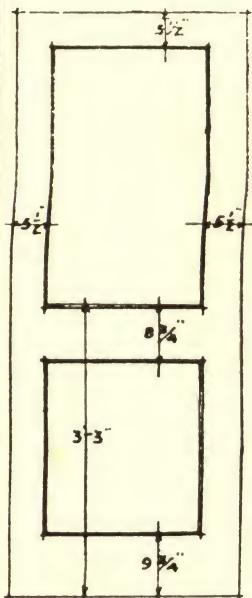
MILDNER & EISEN,  
ARCHITECTS.



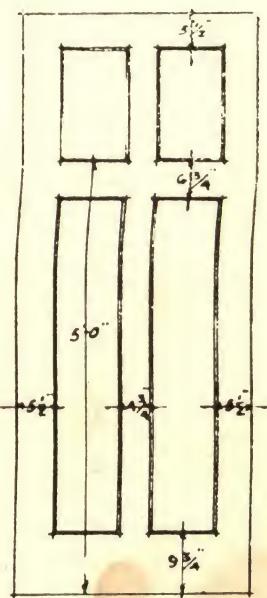
PLAN & ELEVATION - A - LIBRARY - ENTRANCE - AT DETROIT,  
MICHIGAN



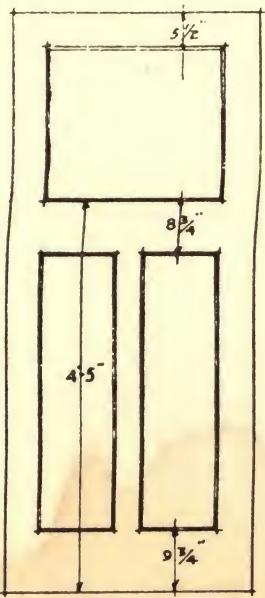
DETAILS-A-LIBRARY-ENTRANCE-  
 AT DETROIT, MICHIGAN.  
 One-Quarter Inch Scale.  
 MILDNER & EISEN, ARCHITECTS.



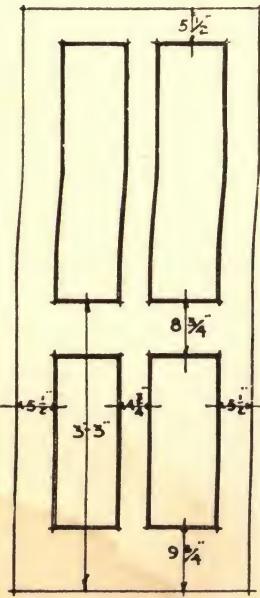
INT.



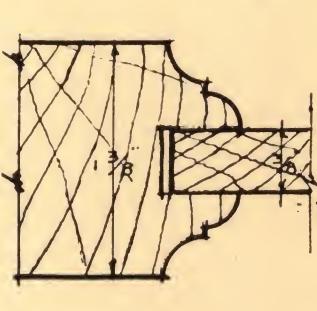
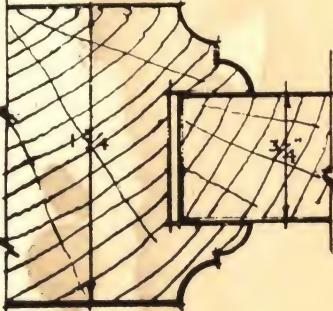
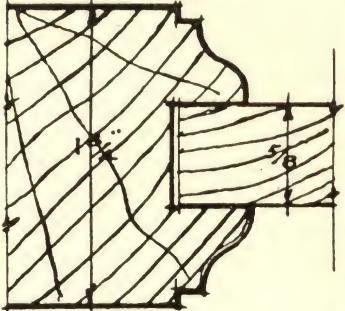
INTERIOR



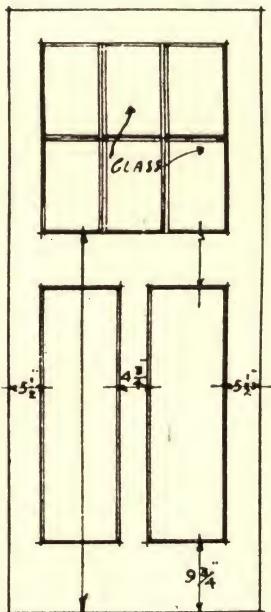
INTERIOR



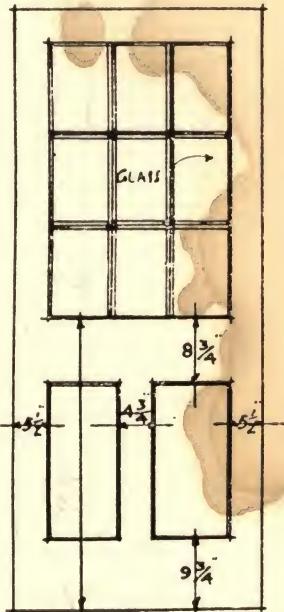
INTERIOR



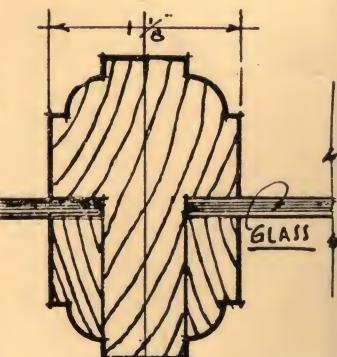
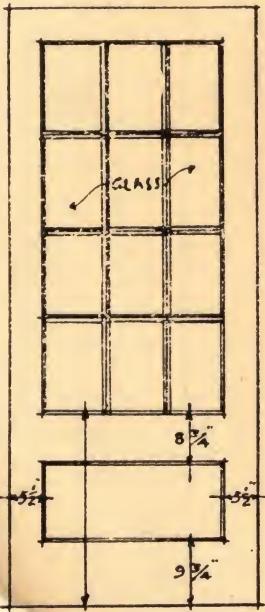
PANEL  
MOULD'S.



EXTERIOR DOORS.

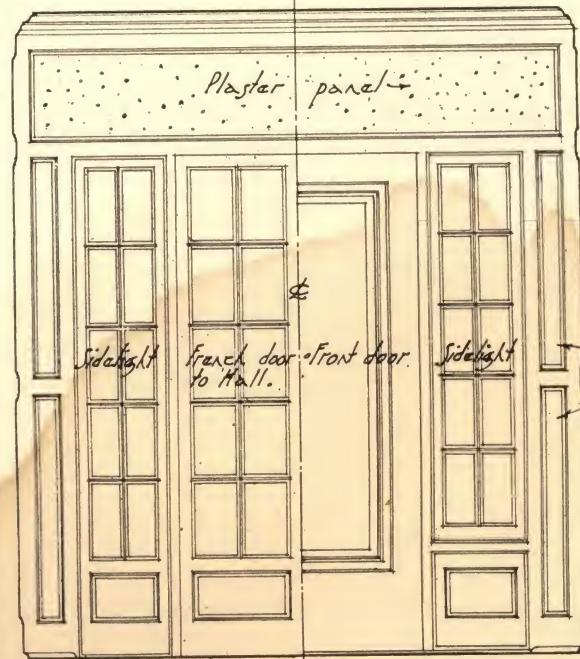


EXTERIOR DOORS.

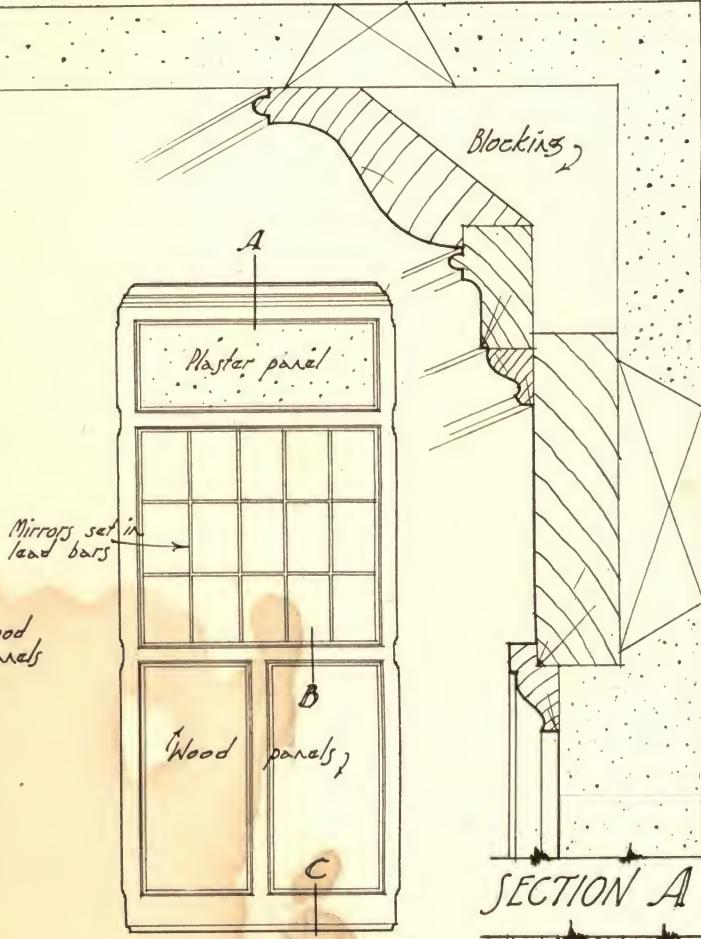


MUNTIN.

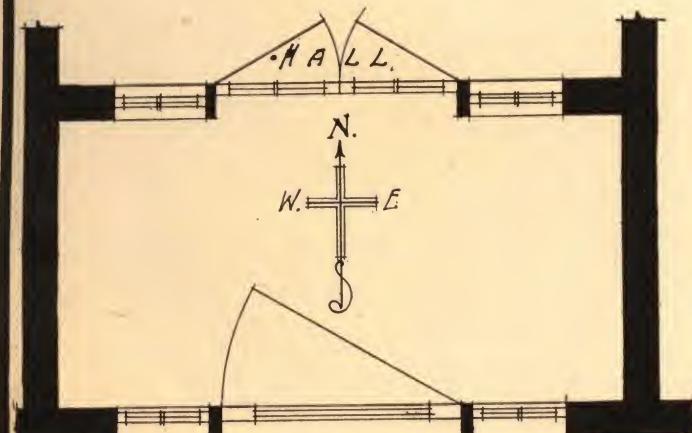
DOOR DETAILS.  
ONTARIO HOUSING COMMITTEE.



• HALF Ⓜ NORTH WALL. • HALF Ⓜ SOUTH WALL.



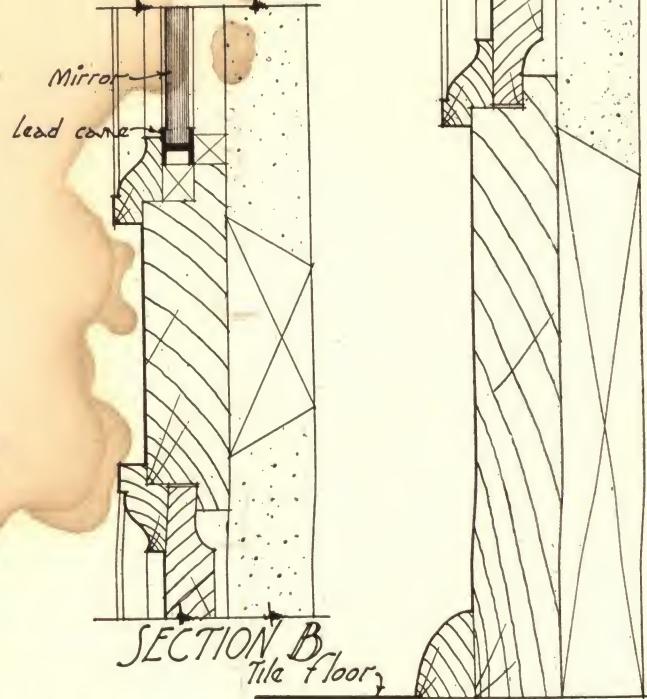
• EAST & WEST WALLS.



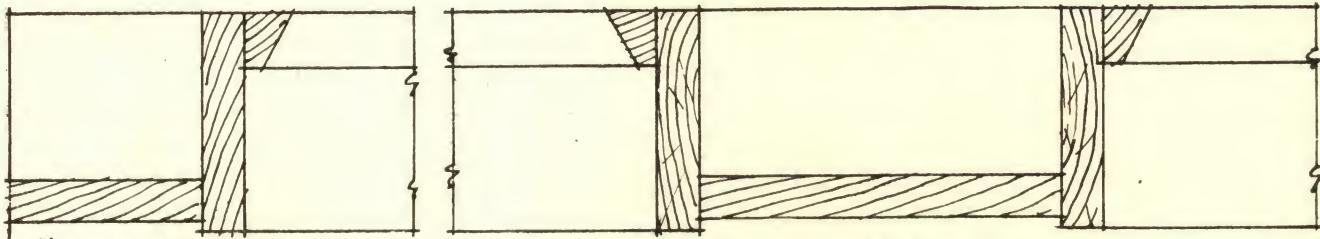
• PLAN.

THE PLAN & ELEVATIONS  
ARE  $\frac{3}{8}$ -INCH SCALE; THE  
SECTIONS ARE HALF SIZE.

- A PANELLED VESTIBULE - SECTION C  
WM. ROBINSON SAFFORD, ARCHITECT.

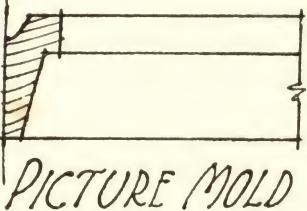


SECTION B  
Tile floor



HALF BEAM  
wall

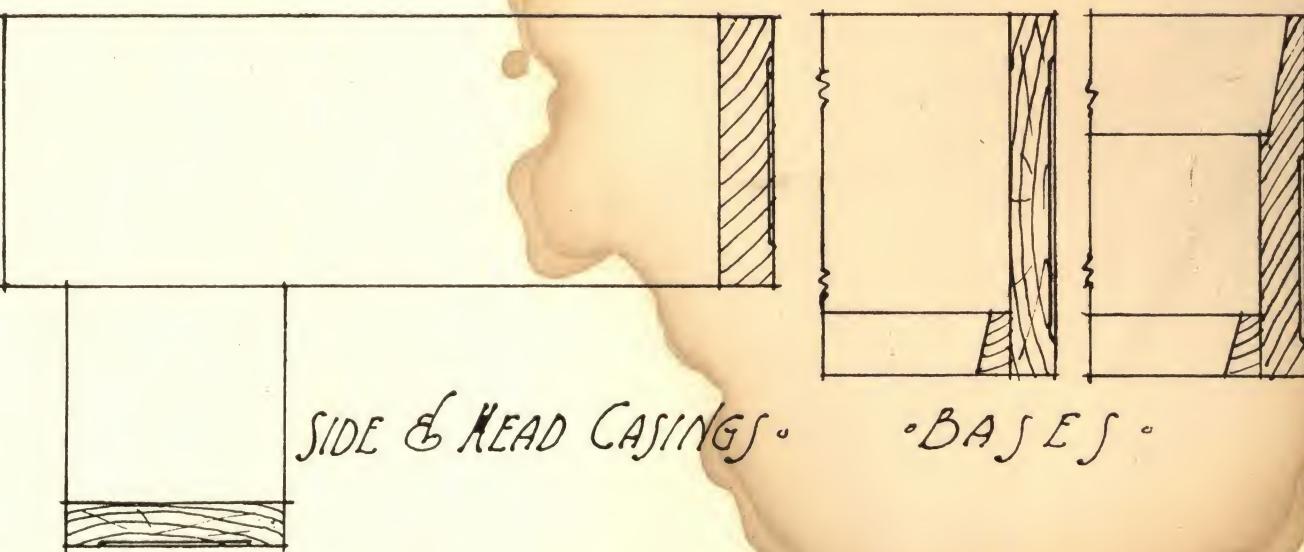
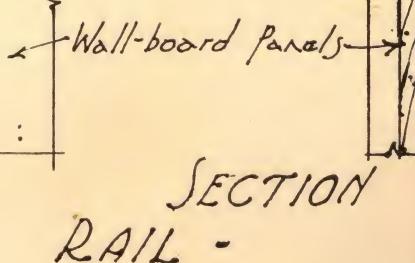
FULL BEAM  
CEILING BEAMS

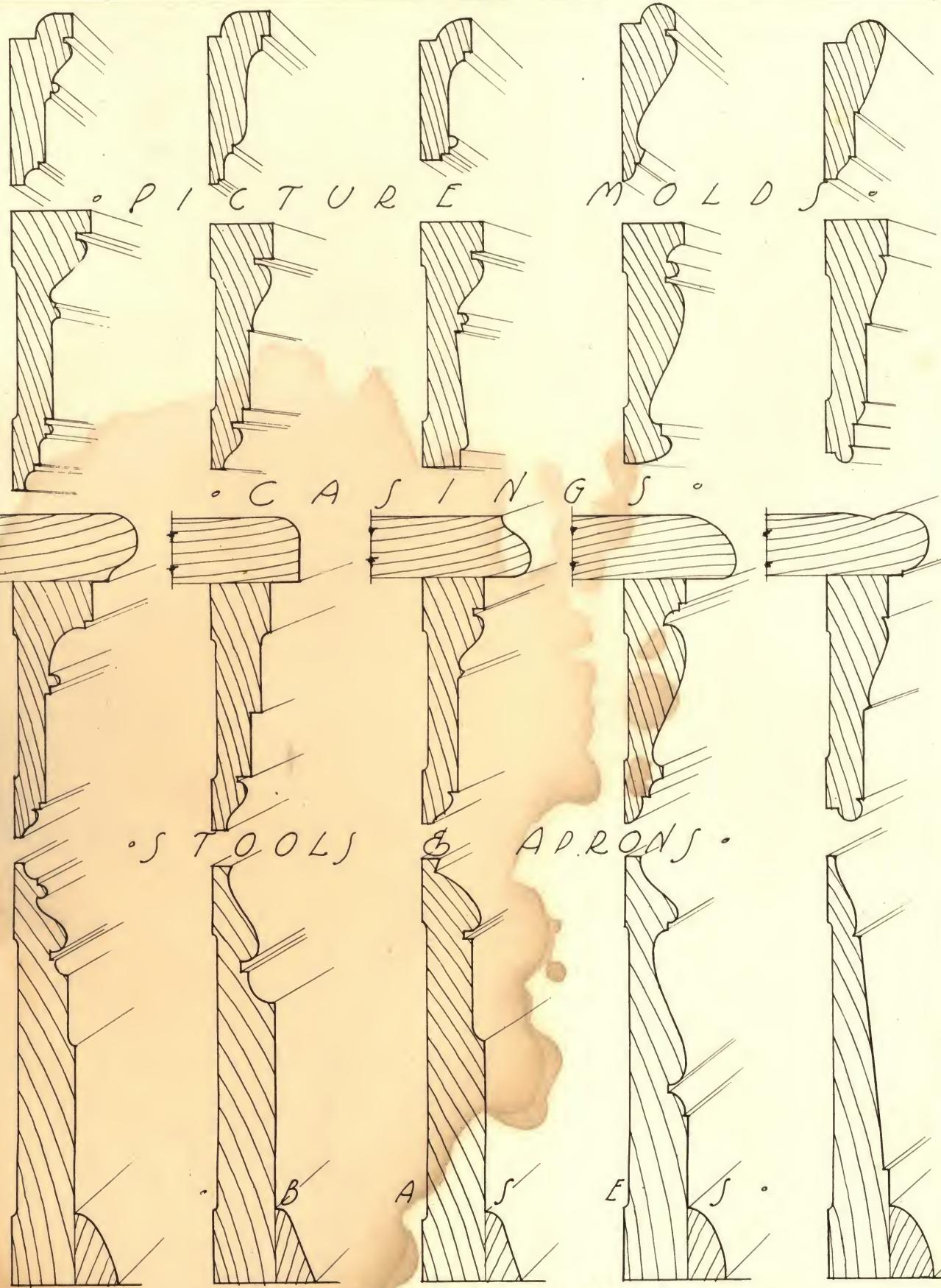


•INTERIOR  
TRIM•

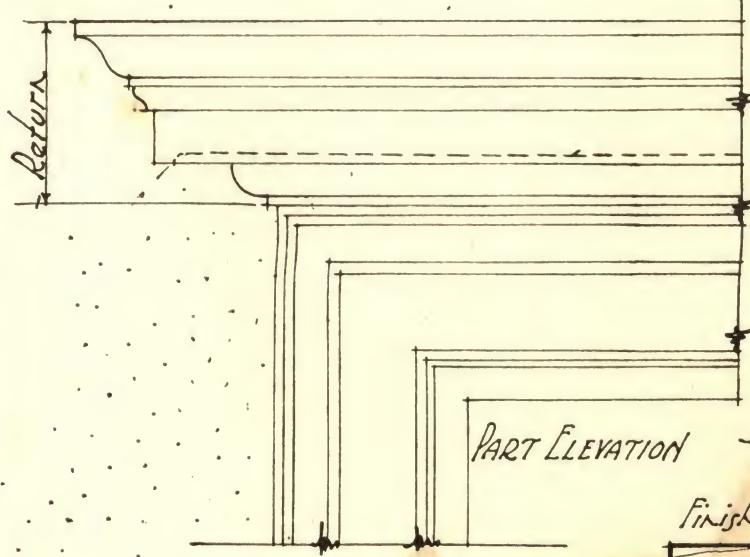
SCALE:  
3 inches to  
1 foot

YE PLANTRY, ARCH'TS.

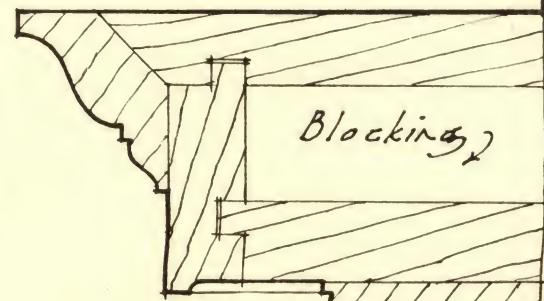




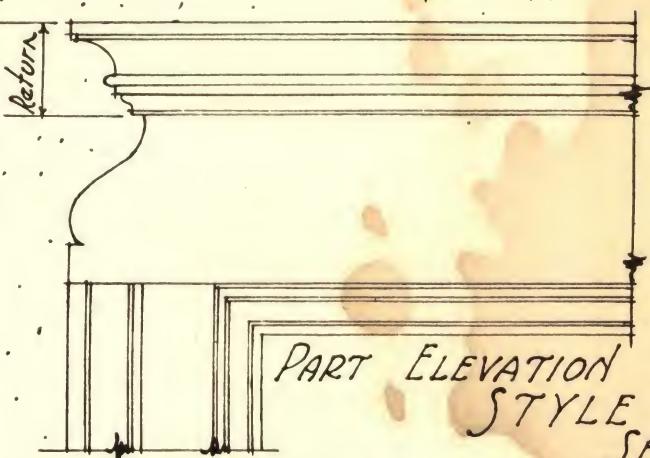
HALF SIZE DETAILS - INTERIOR TRIM - MODIFIED COLONIAL FOR WHITE FINISH



Finished Plaster



PART ELEVATION - STYLE A - SECTION

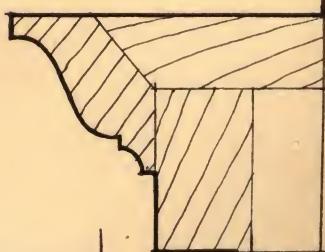


Finished Plaster

PART ELEVATION  
STYLE B  
SECTION

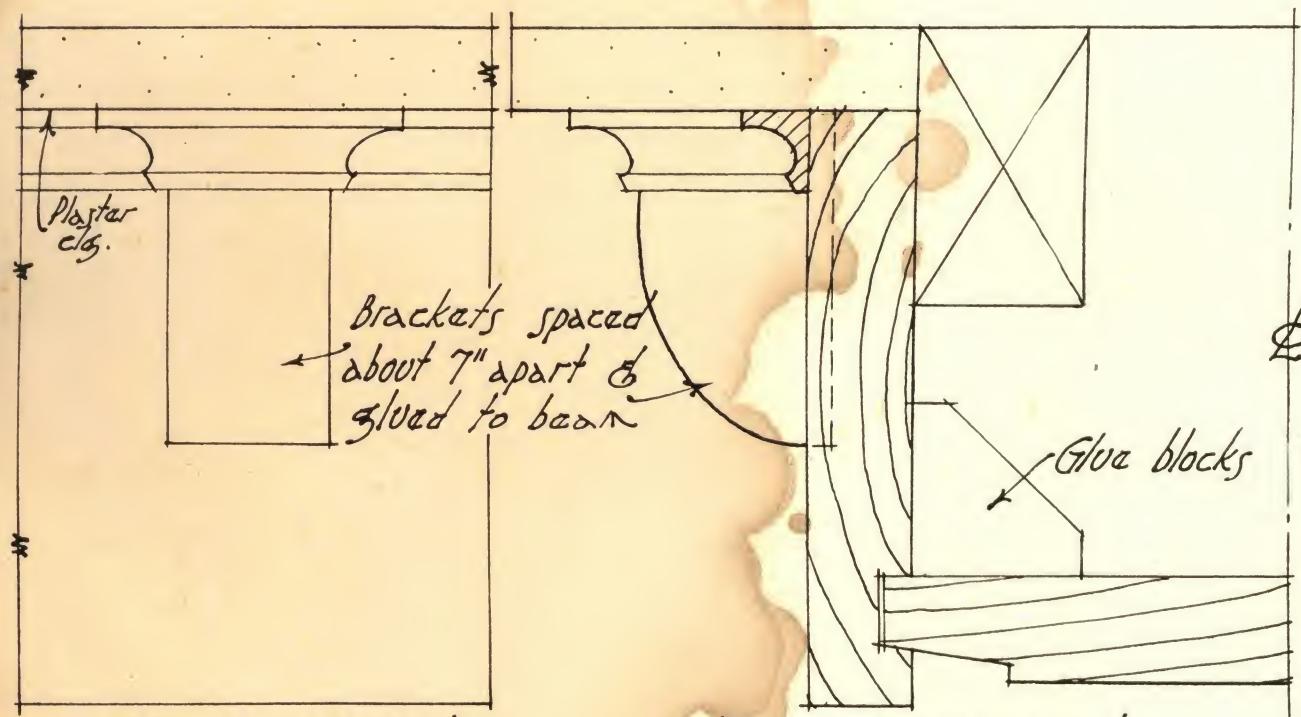
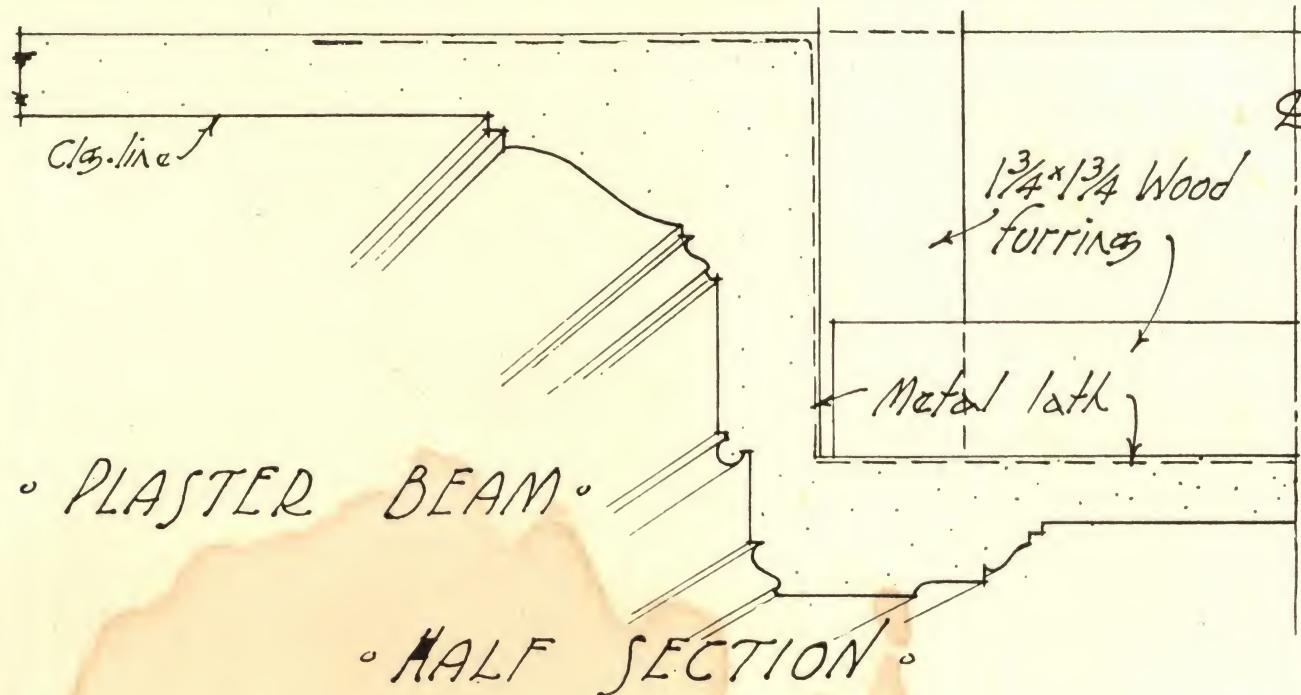
ALL SECTIONS ARE ONE-HALF SIZE  
ALL ELEVATIONS ARE THREE-INCH SCALE

Finished Plaster

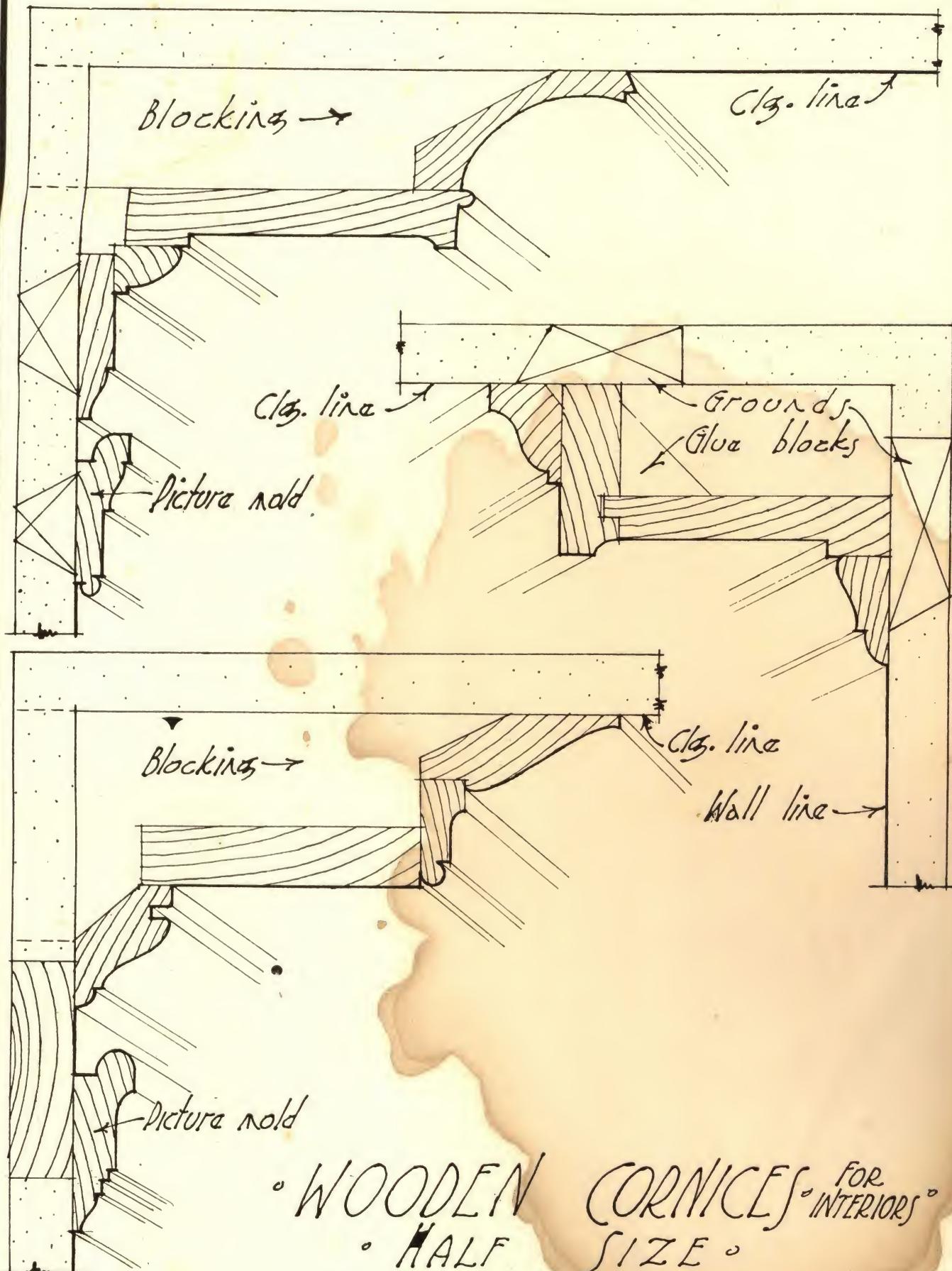


PART ELEVATION - STYLE C - SECTION

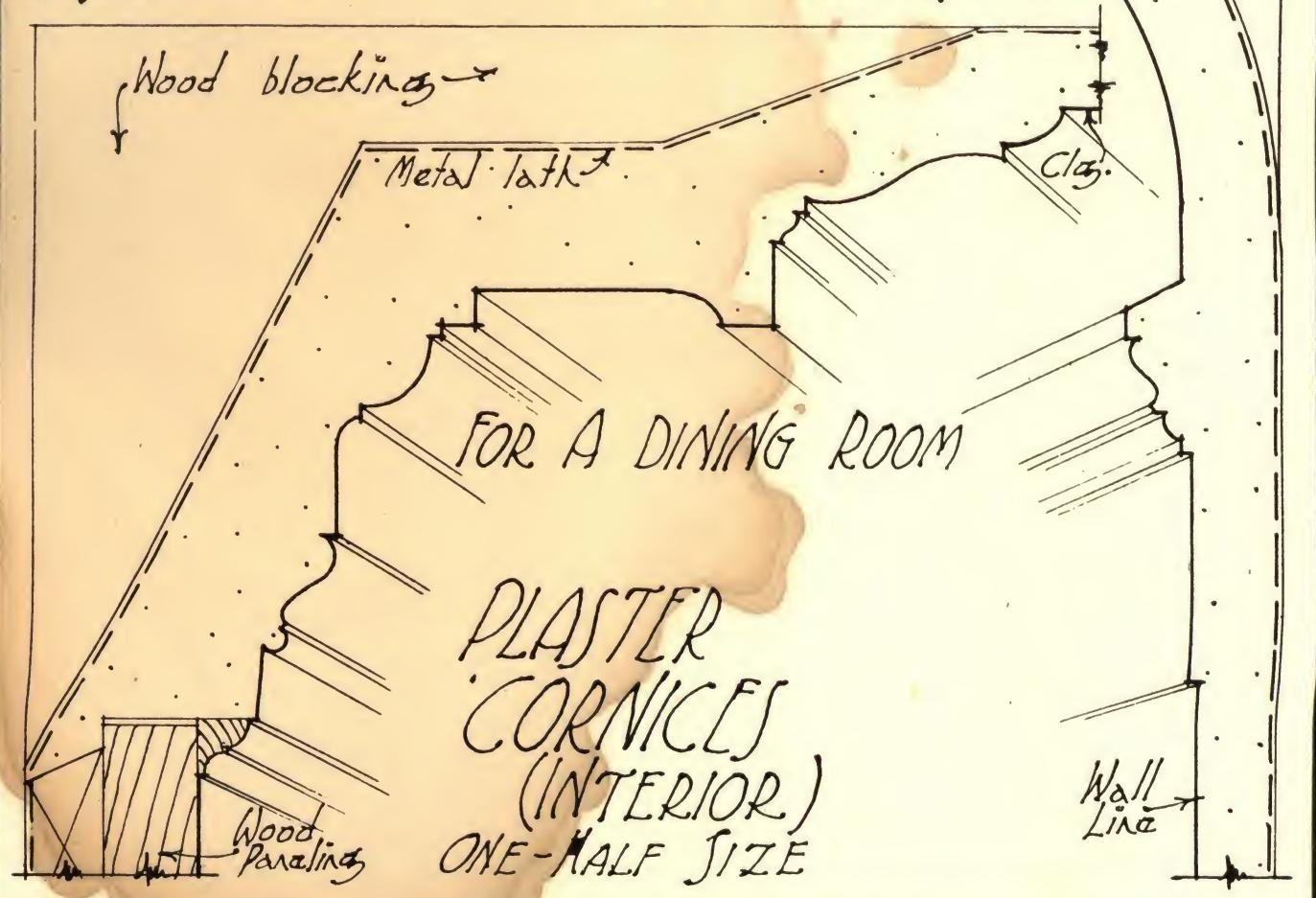
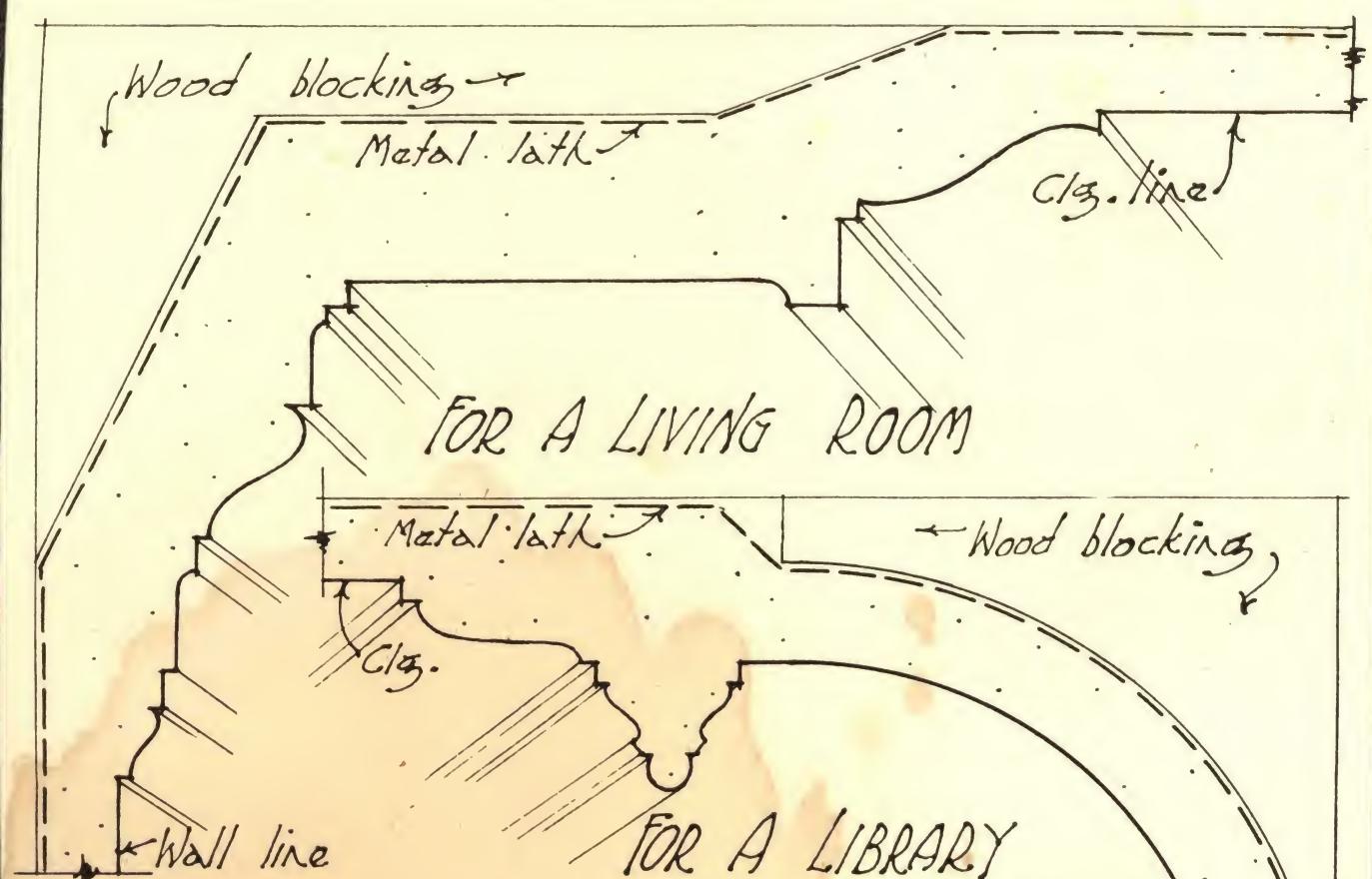
## INTERIOR HEAD-CASINGS

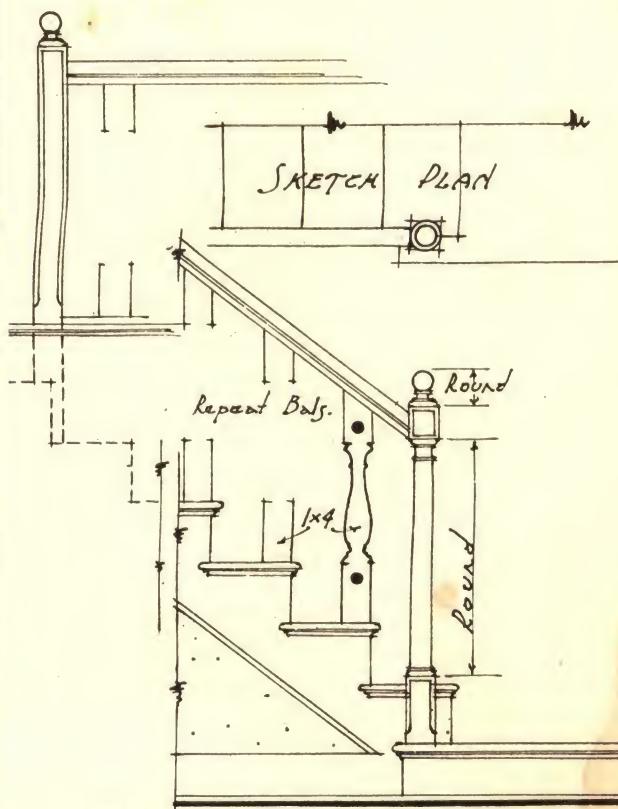


• PART ELEVATION. • HALF SECTION.  
WOODEN BEAM. • HALF SIZE.  
• CEILING BEAMS. • HALF SIZE. •

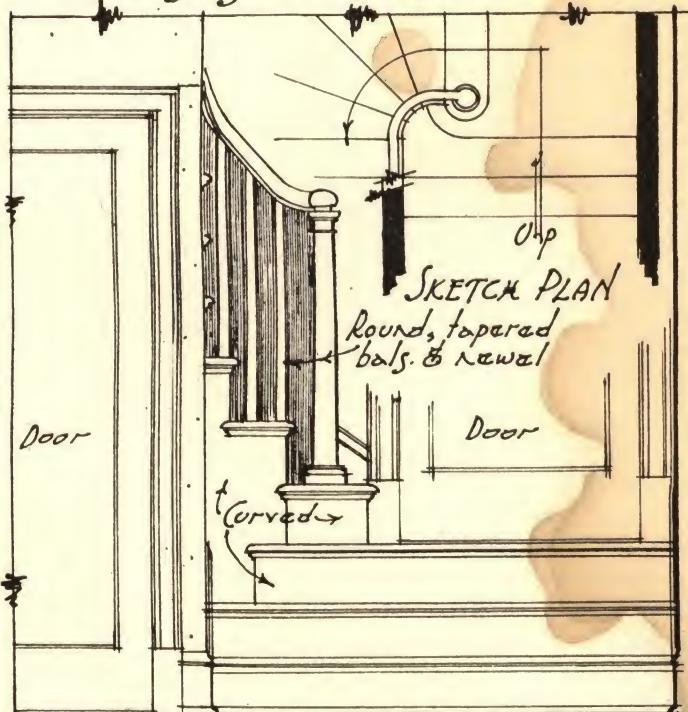


• WOODEN CORNICES FOR INTERIORS •  
• HALF SIZE •

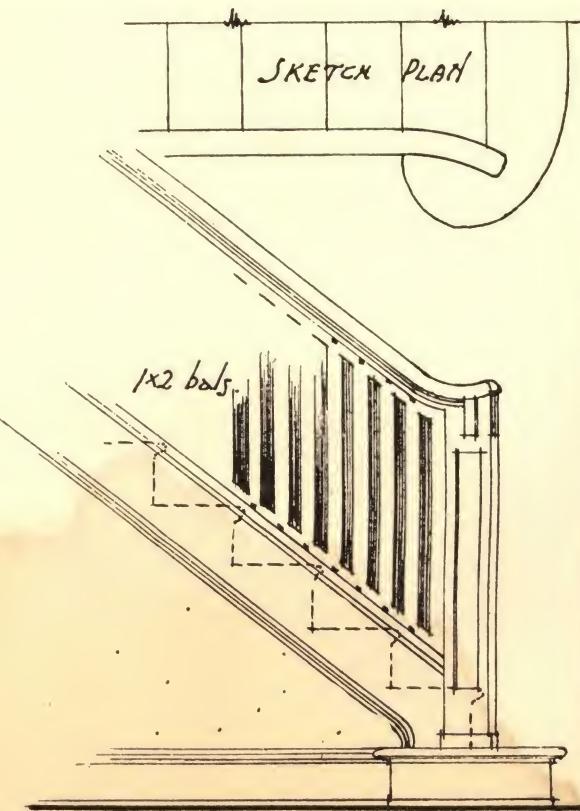




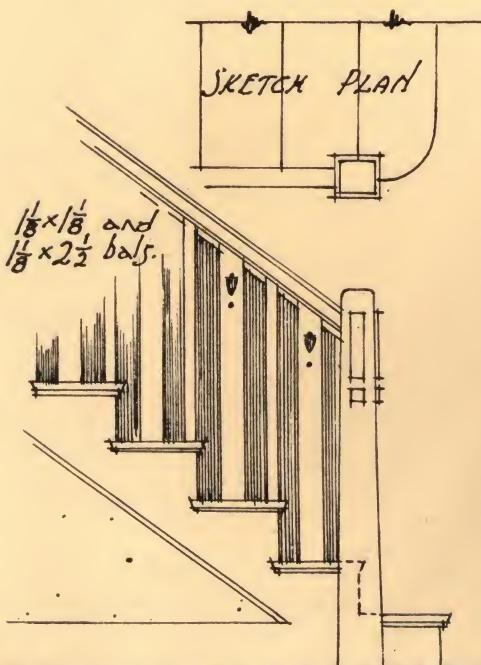
CHAS. S. FROST, ARCH'T.



JOHN R. LAW, ARCHITECT.

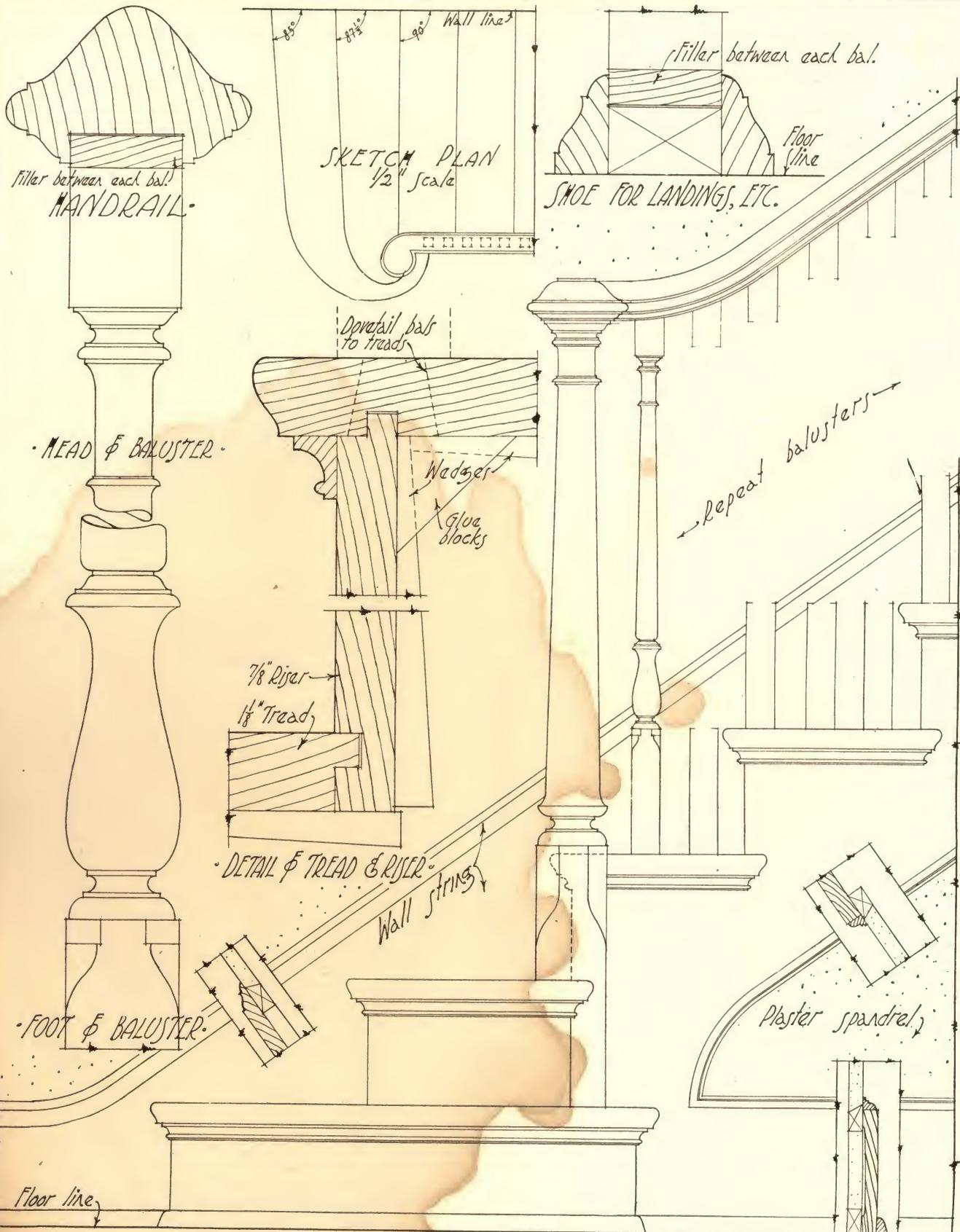


W. GIBBONS UFFENDELL, ARCH'T.

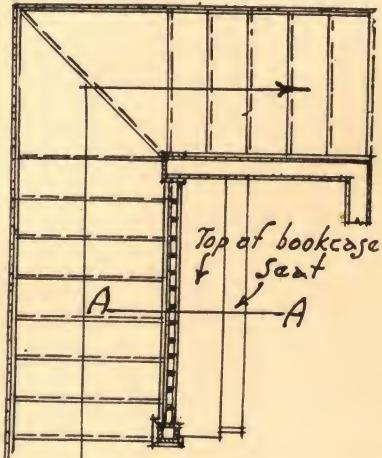
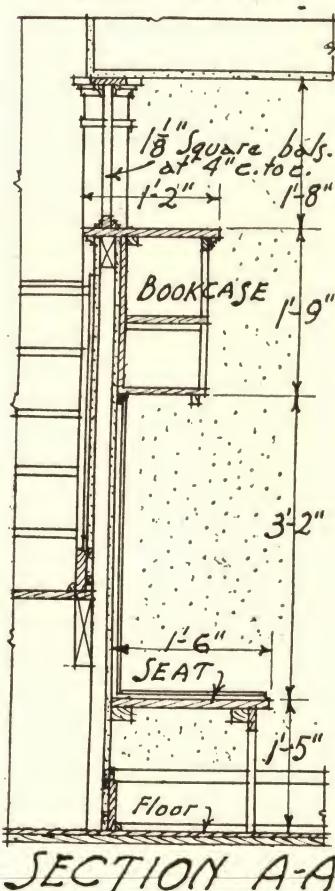
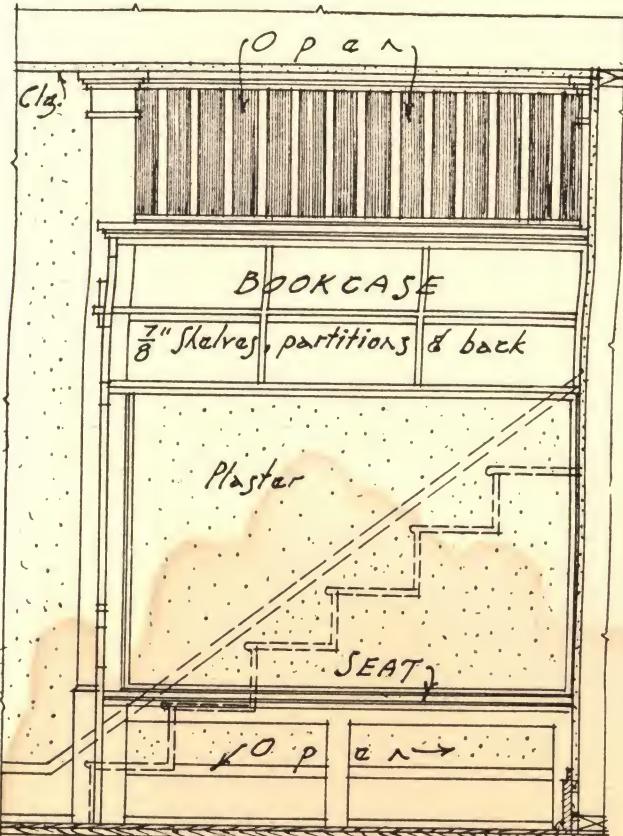
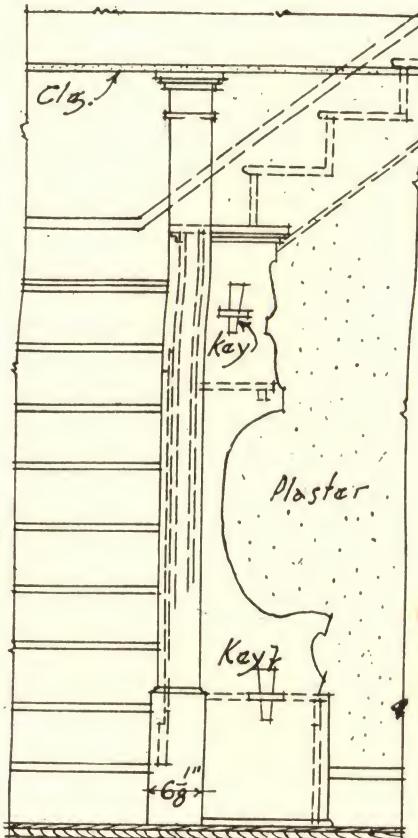


CHAS. P. RAWSON, ARCH'T.

- STAIR - DESIGNS -  
- SCALE,  $1/2$  inch to 1 foot -

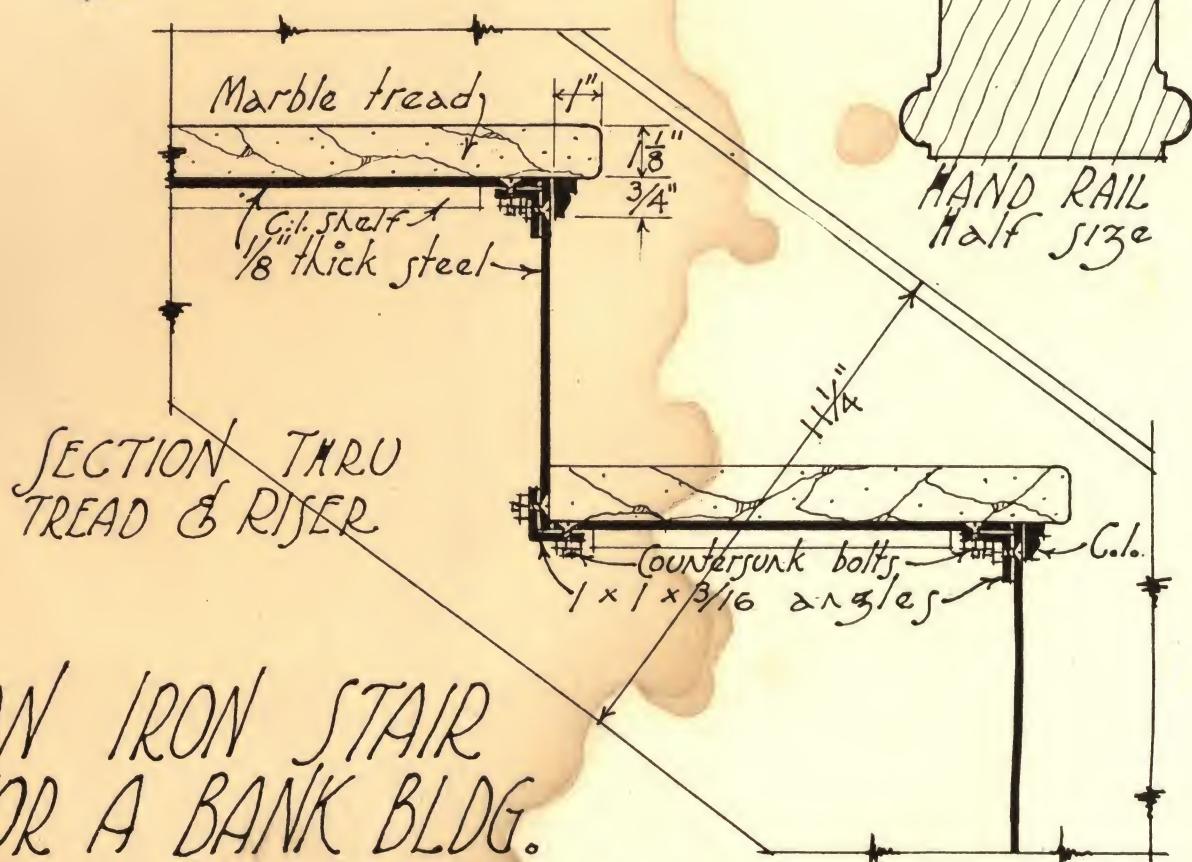
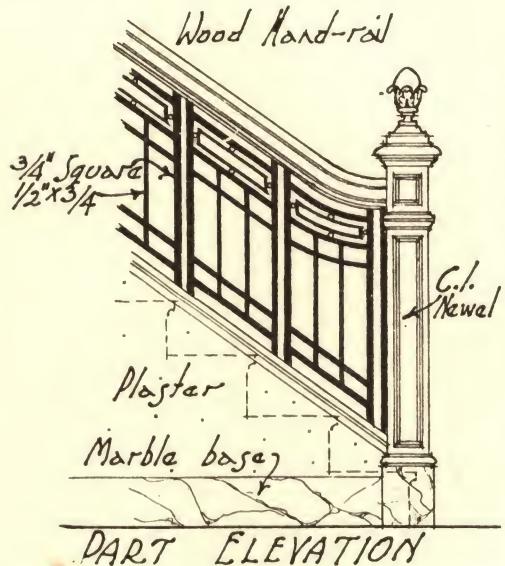
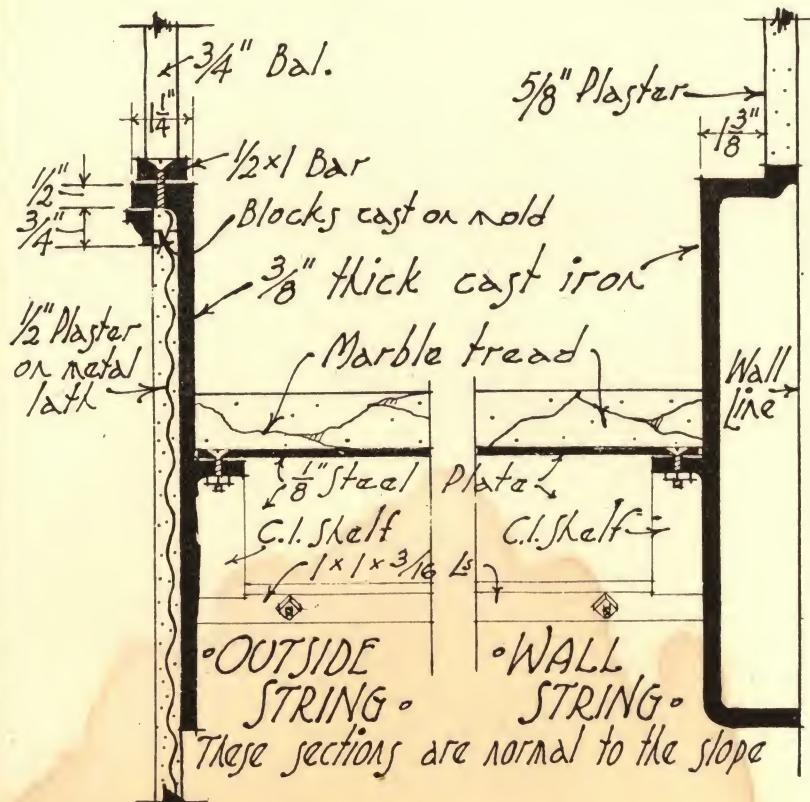


• 1/2" INCH SCALE PART ELEVATION.  
 • THE DETAILS ARE HALF SIZE. • A STAIR. • JIM T. POMEROY,  
 ARCHITECT.



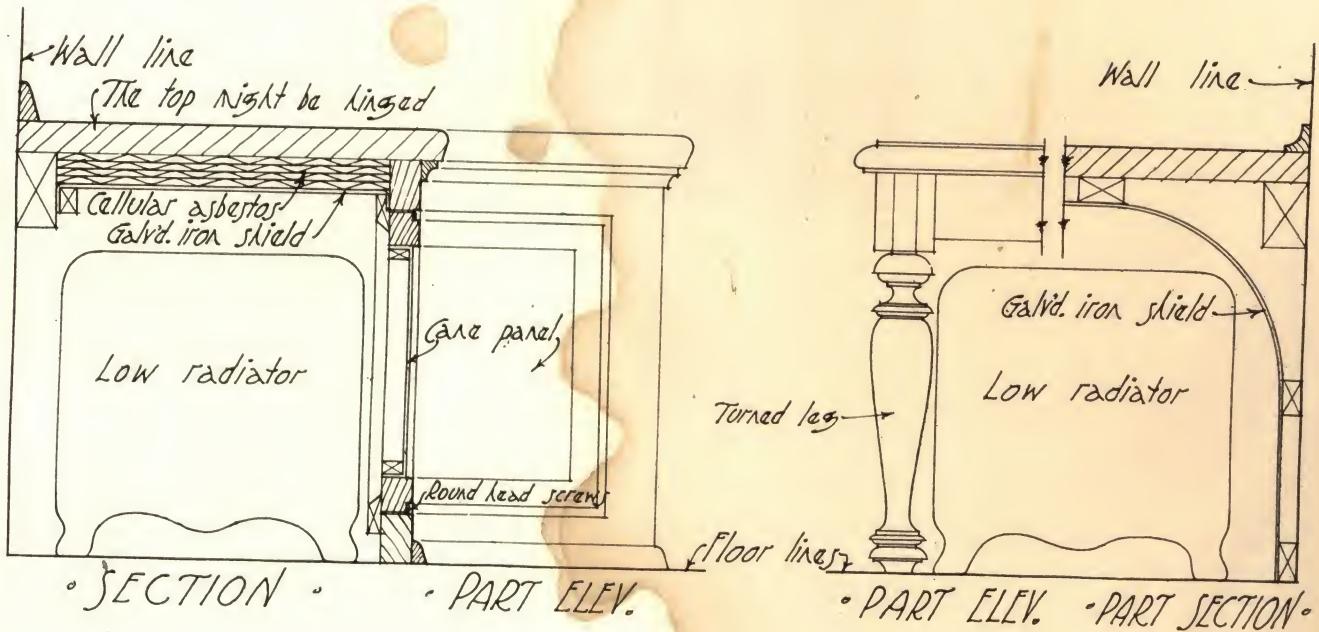
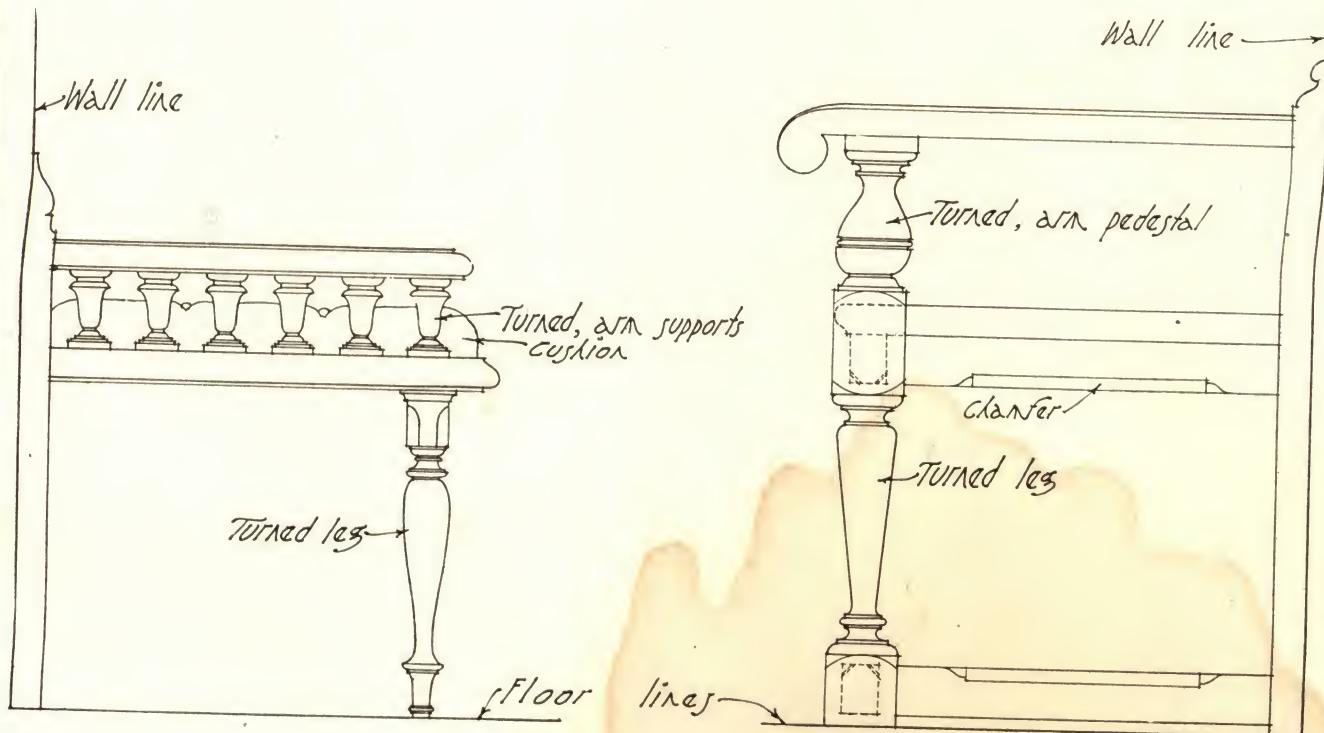
## • DETAILS ⚡ A COMBINATION STAIR, BOOKCASE & SEAT.

The elevations & section are  $\frac{1}{2}$ -inch scale.  
The plan is  $\frac{1}{4}$ -inch scale.



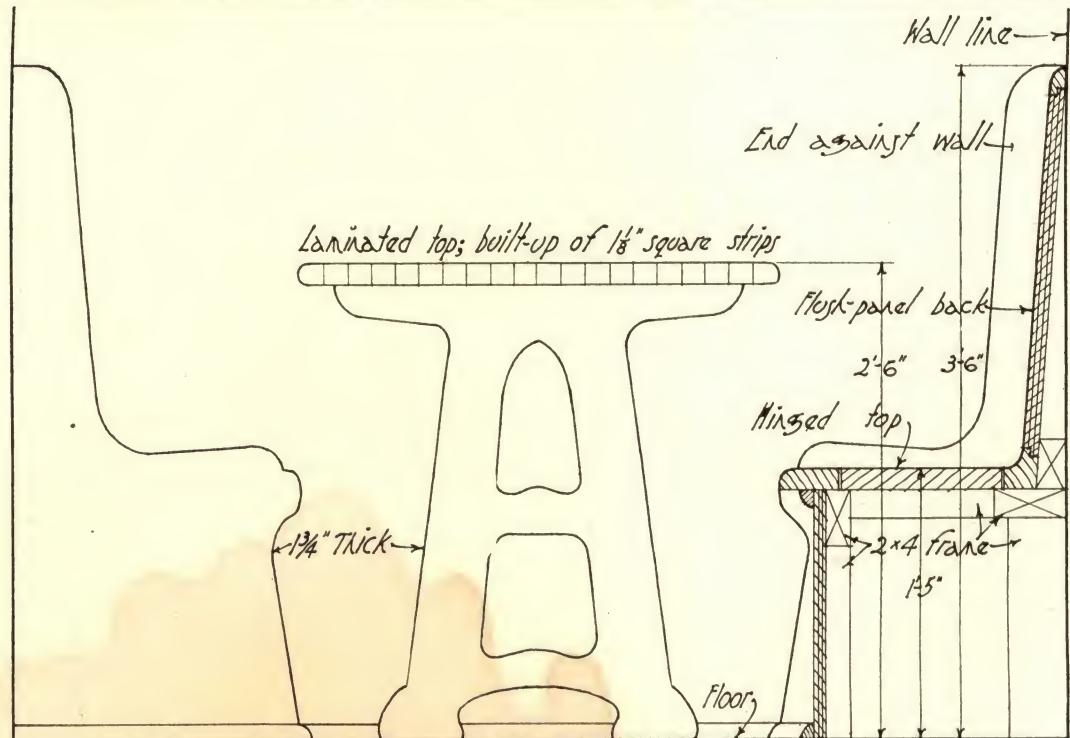
## AN IRON STAIR FOR A BANK BLDG.

The elevation is  $\frac{1}{2}$ -inch scale; the details are 3-inch scale.  
FRANK W. MOORE & DON CARLOS YOUNG, JR., ARCHTS.

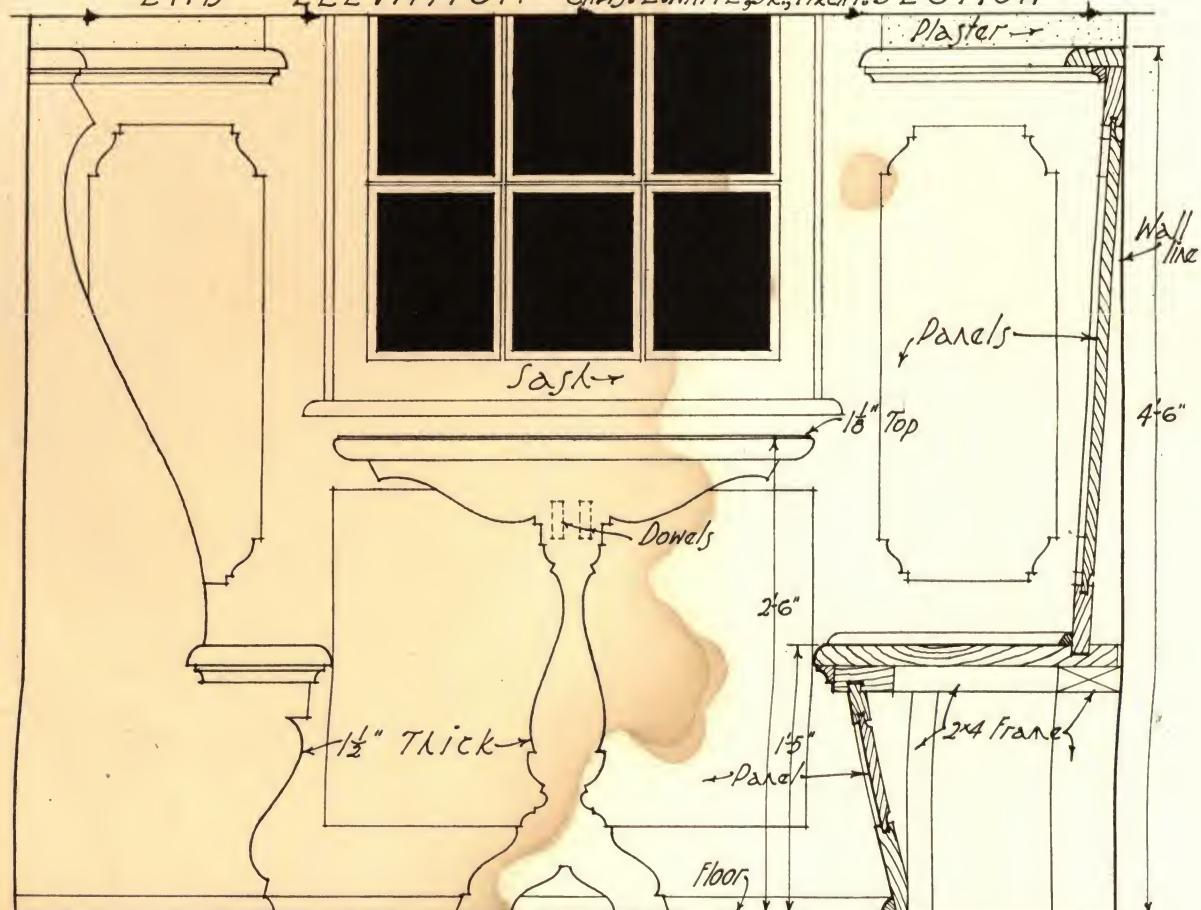


• BUILT-IN SEATS •  
• 1/2 - INCH SCALE •

W.M. ROBINSON - SAFFORD, ARCHITECT.

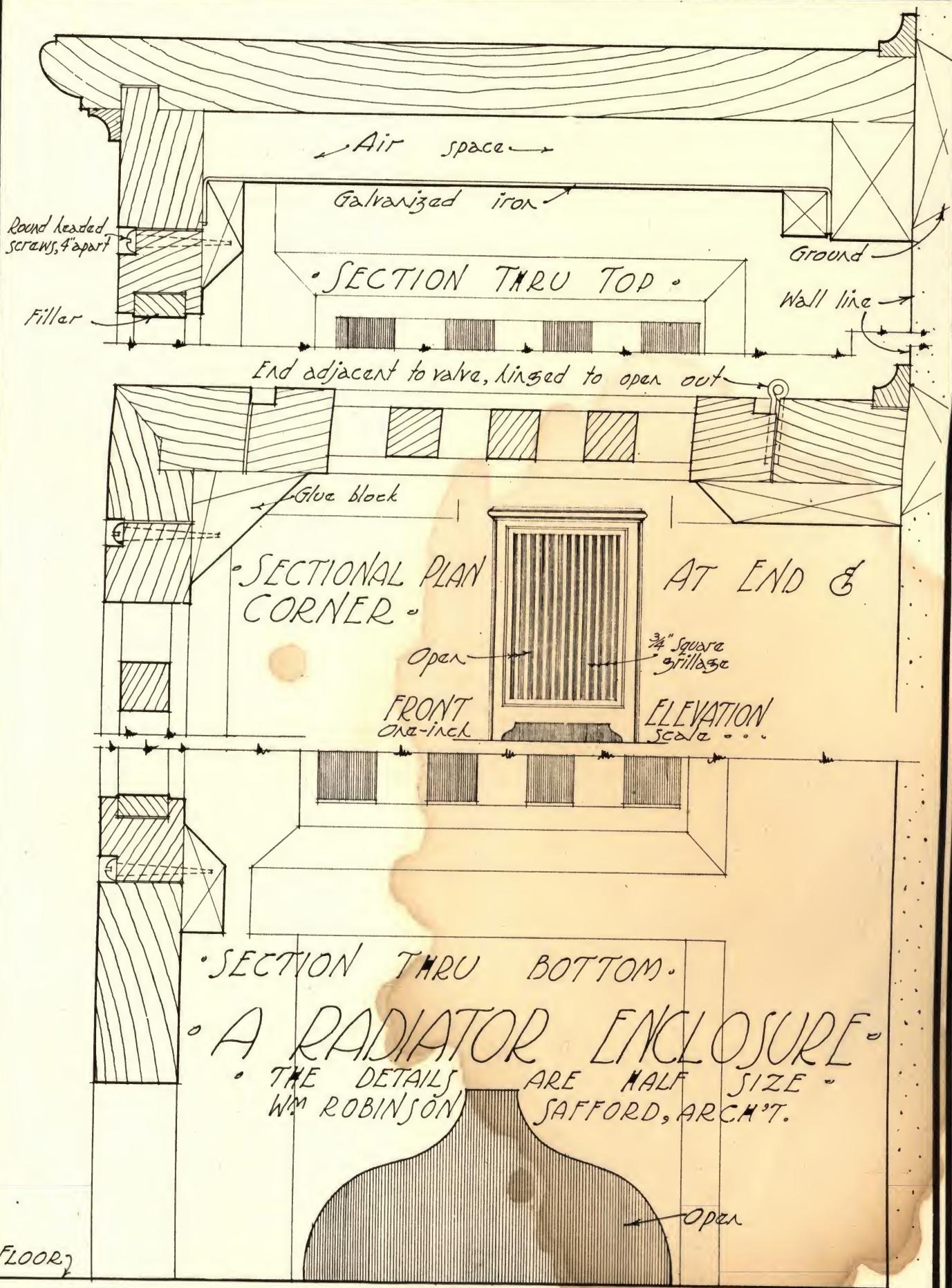


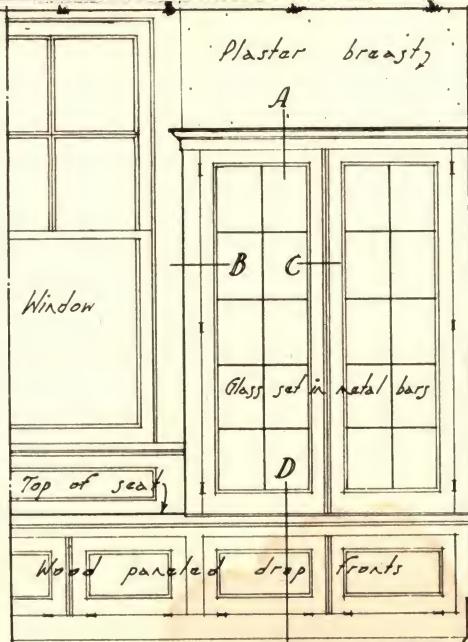
• END ELEVATION • CHAS. E. WHITE, Jr., ARCHT. SECTION •



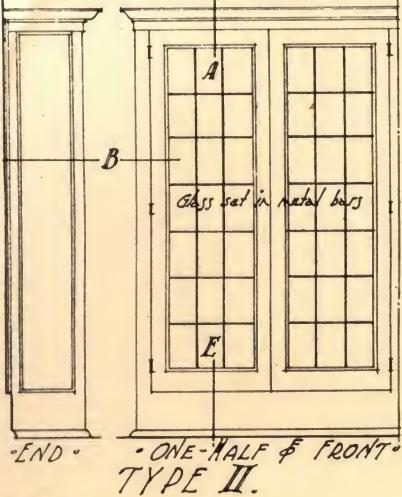
• END ELEVATION - SECTION •

• BREAKFAST ALCOVES •  
• ONE INCH SCALE •

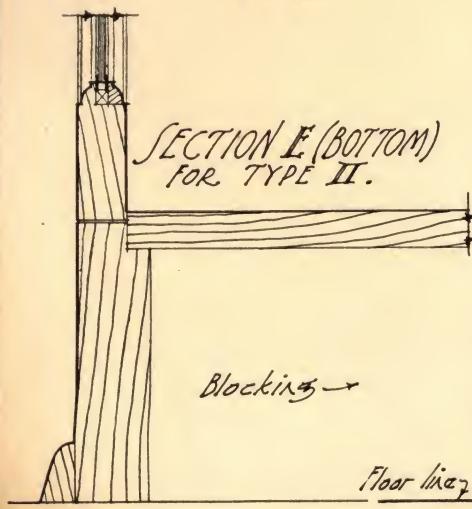




PART ELEV. & TYPE I.



SECTION E (BOTTOM)  
FOR TYPE II.



Breast line for Type I. Wall line for Type II.

SECTION A (TOP)  
FOR BOTH TYPES.

Metal cane  
Glass

Wall line

SECTION B (END)  
FOR BOTH TYPES.

SECTION C (MULLION)  
FOR TYPE II.

10"

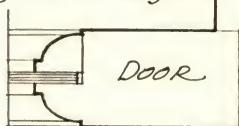
Glue strips  
SECTION D (BOTTOM)  
FOR TYPE I.

Wall line

Blocking

THE ELEVATIONS  
ARE  $\frac{1}{2}$ -INCH SCALE. BOOKCASES. THE DETAILS ARE  
3-INCH SCALE  
CHAS. E. WHITE, JR., ARCHT.

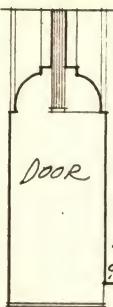
side of case →



Door

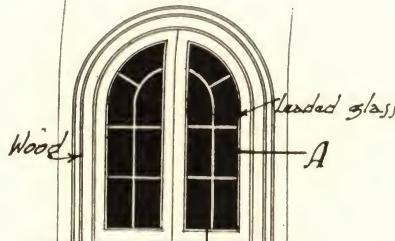
Plaster wall →

• CONTOUR SECTION A •



Door

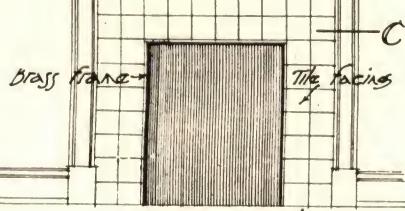
Bottom  
of case



Wood

Stained glass

A



Brass frame

Tile facings

B

C

• ELEVATION •

Flue

Flue

Plaster  
3 sh. base

Mantel shelf

• PLAN THRU CASE •

Flue

Ash dump  
fire brick

My heart

• PLAN THRU FIREPLACE •

• CONTOUR SECTION B •

Tile facings

Plinth

Pl. wall →

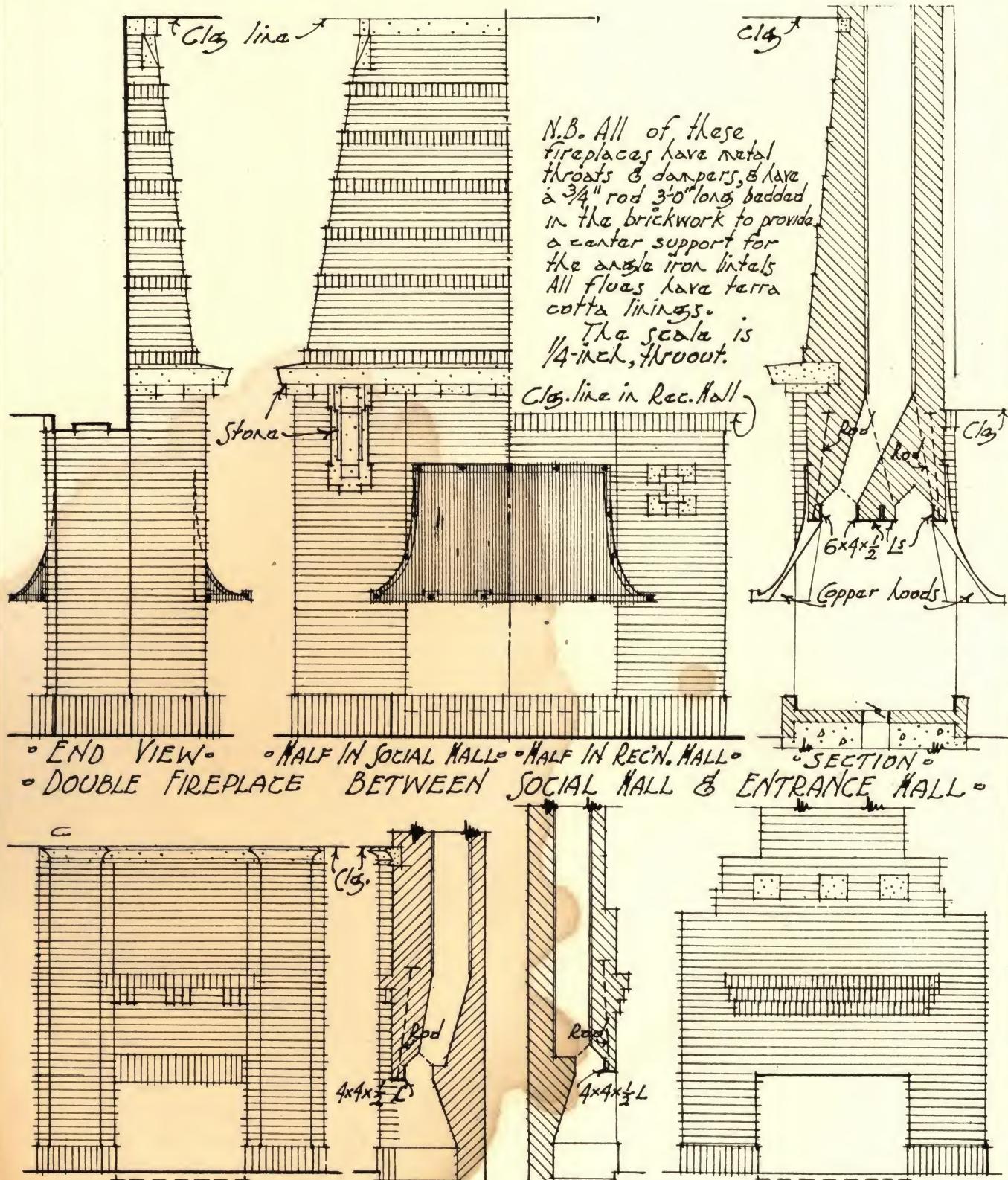
CONTOUR SECTION C

Tile facings

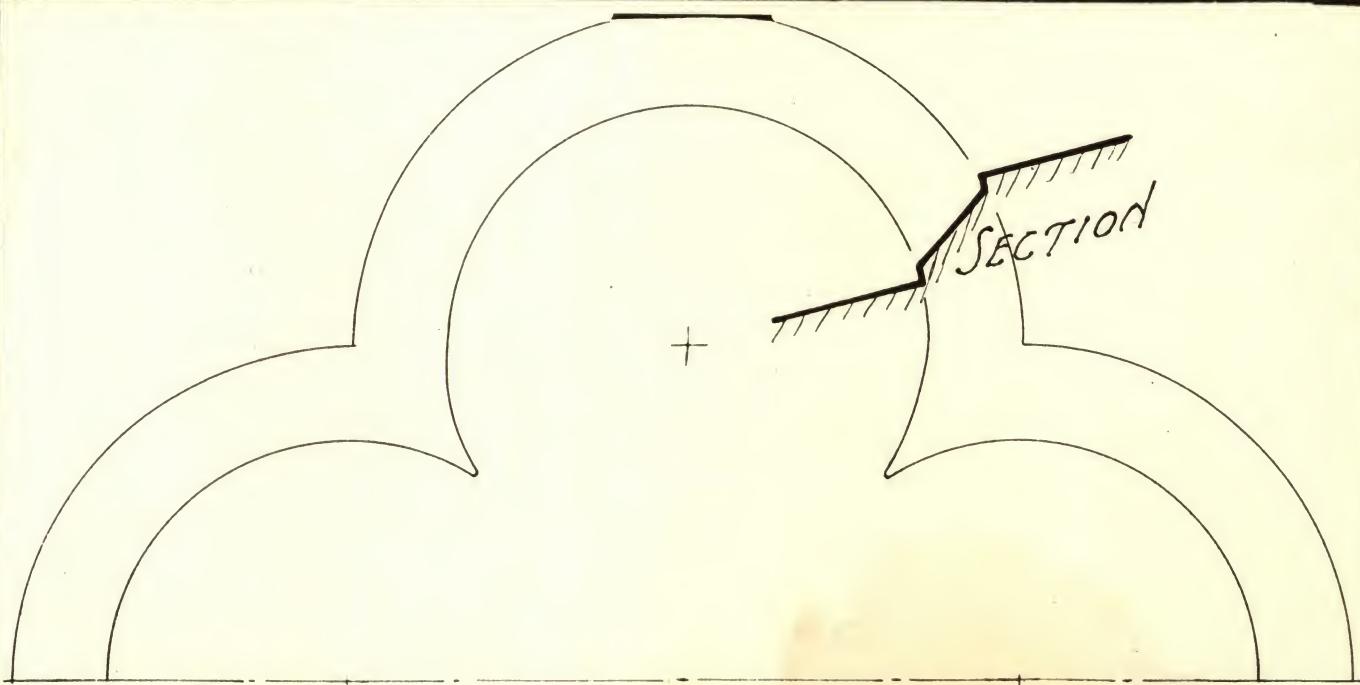
A CORNER FIREPLACE & CHINA CASE.

THE SECTIONS ARE HALF SIZE; THE ELEVATION & PLANS ARE  $\frac{3}{8}$  INCH SCALE.

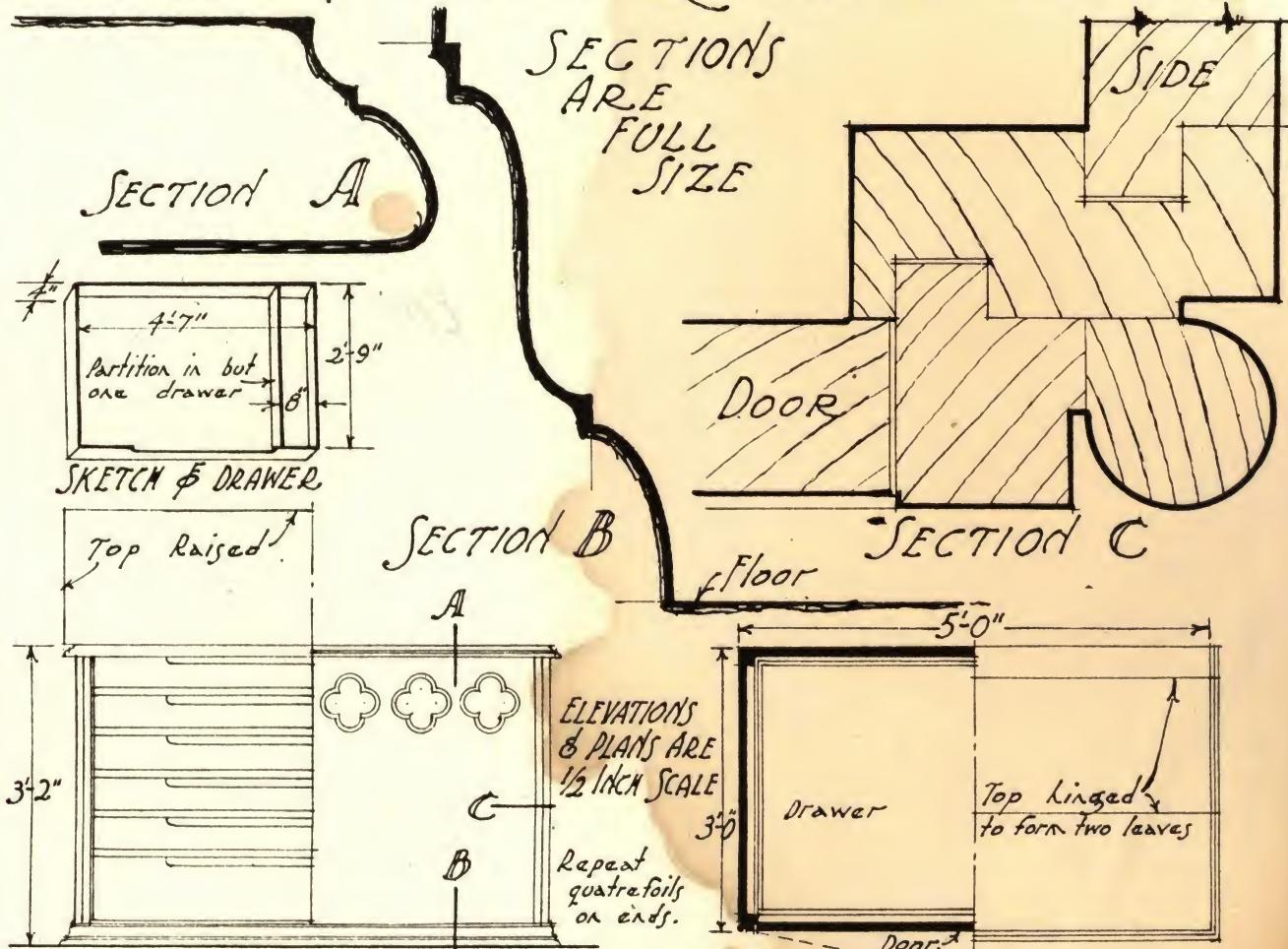
JIM T. POMEROY, ARCH'T.



BRICK FIREPLACES FOR A COUNTRY CLUB  
AT OAK PARK, ILL.  
PATTON, ROBERTS, DRUMMOND & WHITE, ASSOCIATED ARCH'TS.

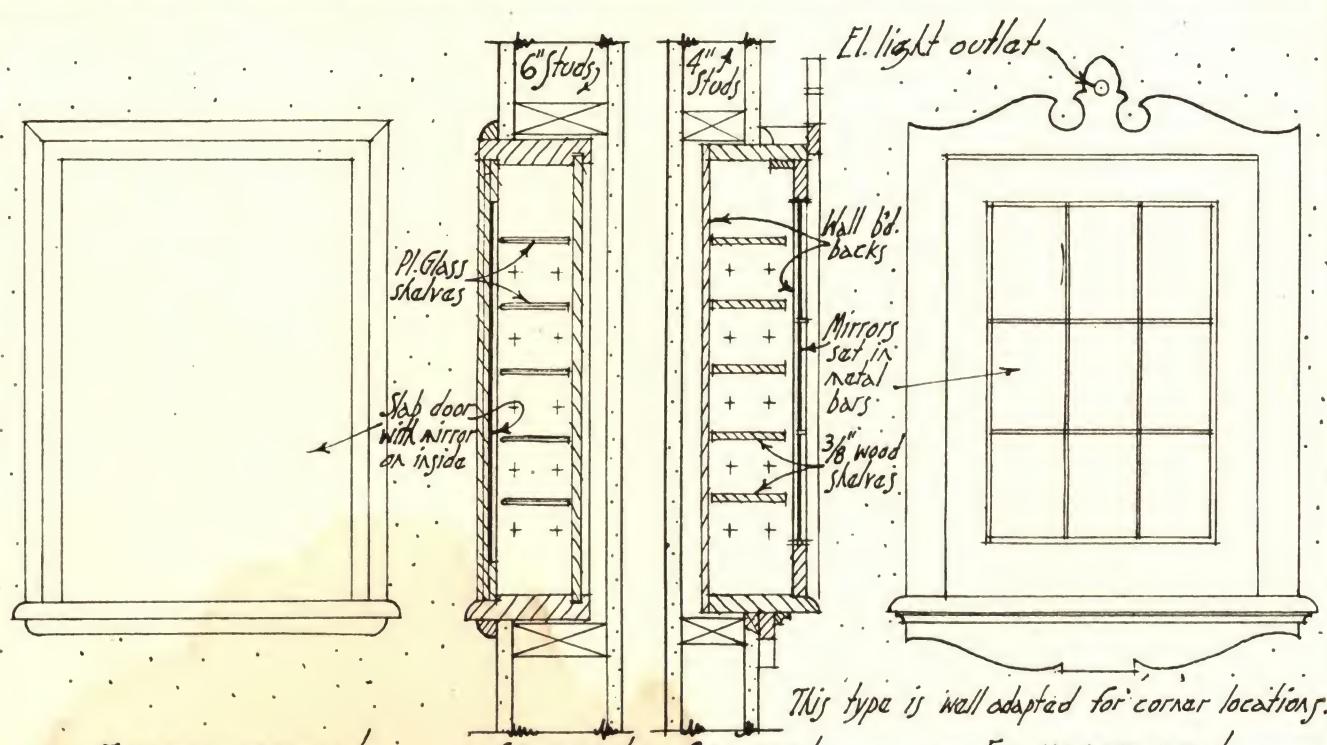


• ONE HALF φ TYPICAL QUATREFOIL - FULL SIZE •



DOOR OPEN - HALF ELEVATIONS - DOOR CLOSED

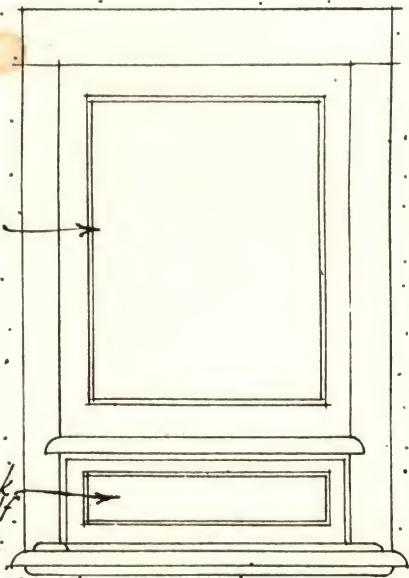
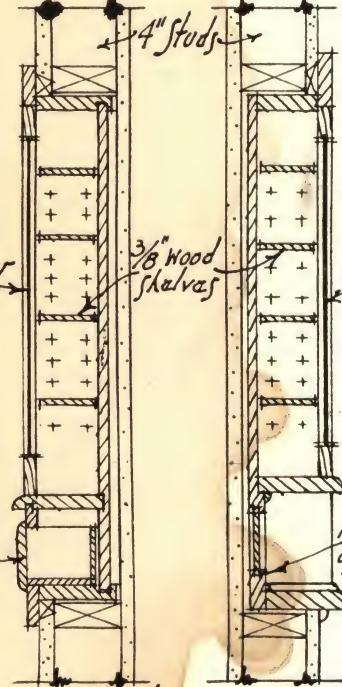
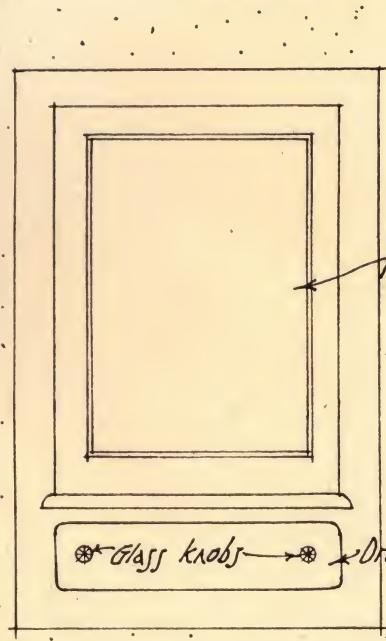
CHAS. E. WHITE, JR., ARCHITECT. A SACRISTY CABINET - AT OAK PARK, ILLINOIS



• ELEVATION •  
• FLUSH TYPE •

• SECTION •  
• SECTION •

• ELEVATION •  
• SEMI-FLUSH TYPE •



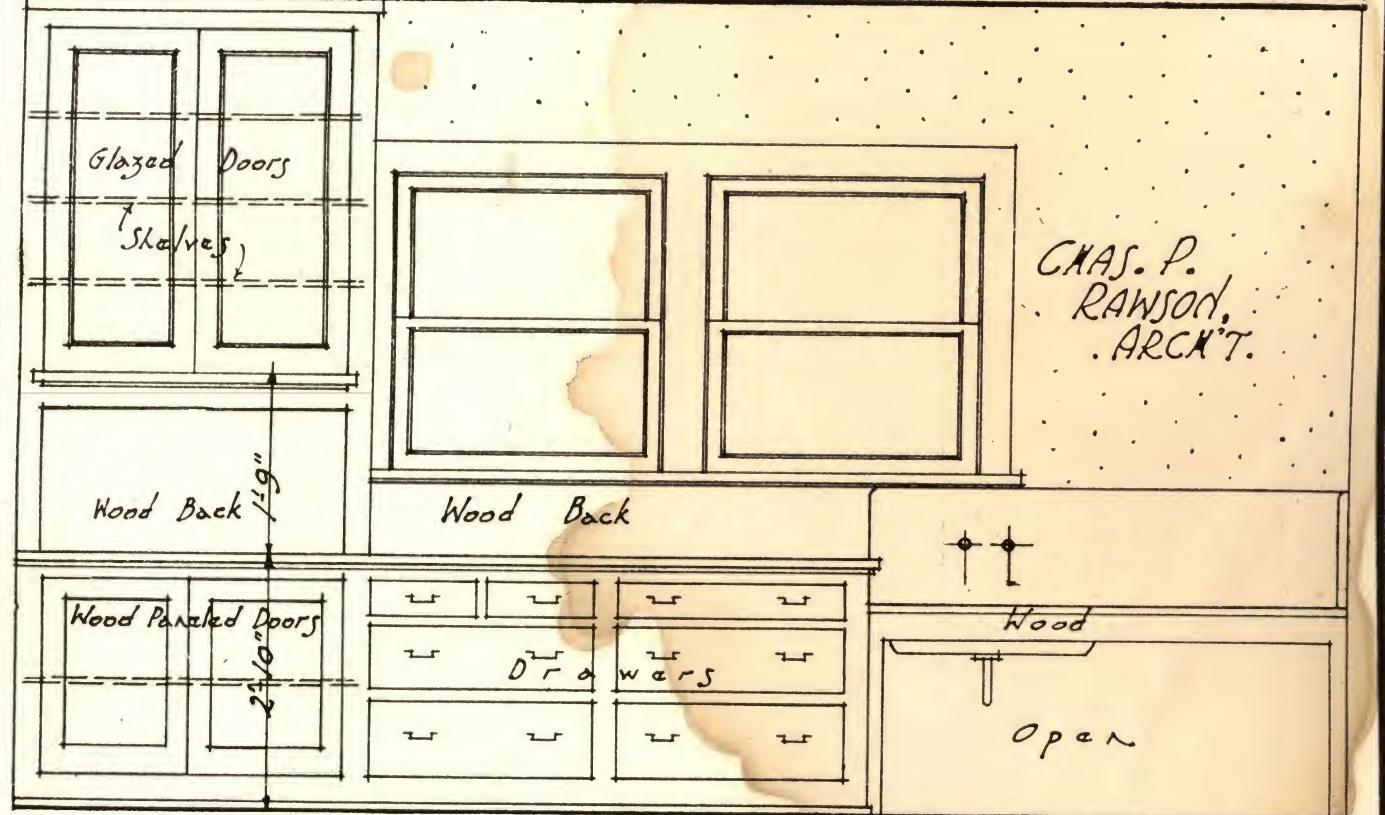
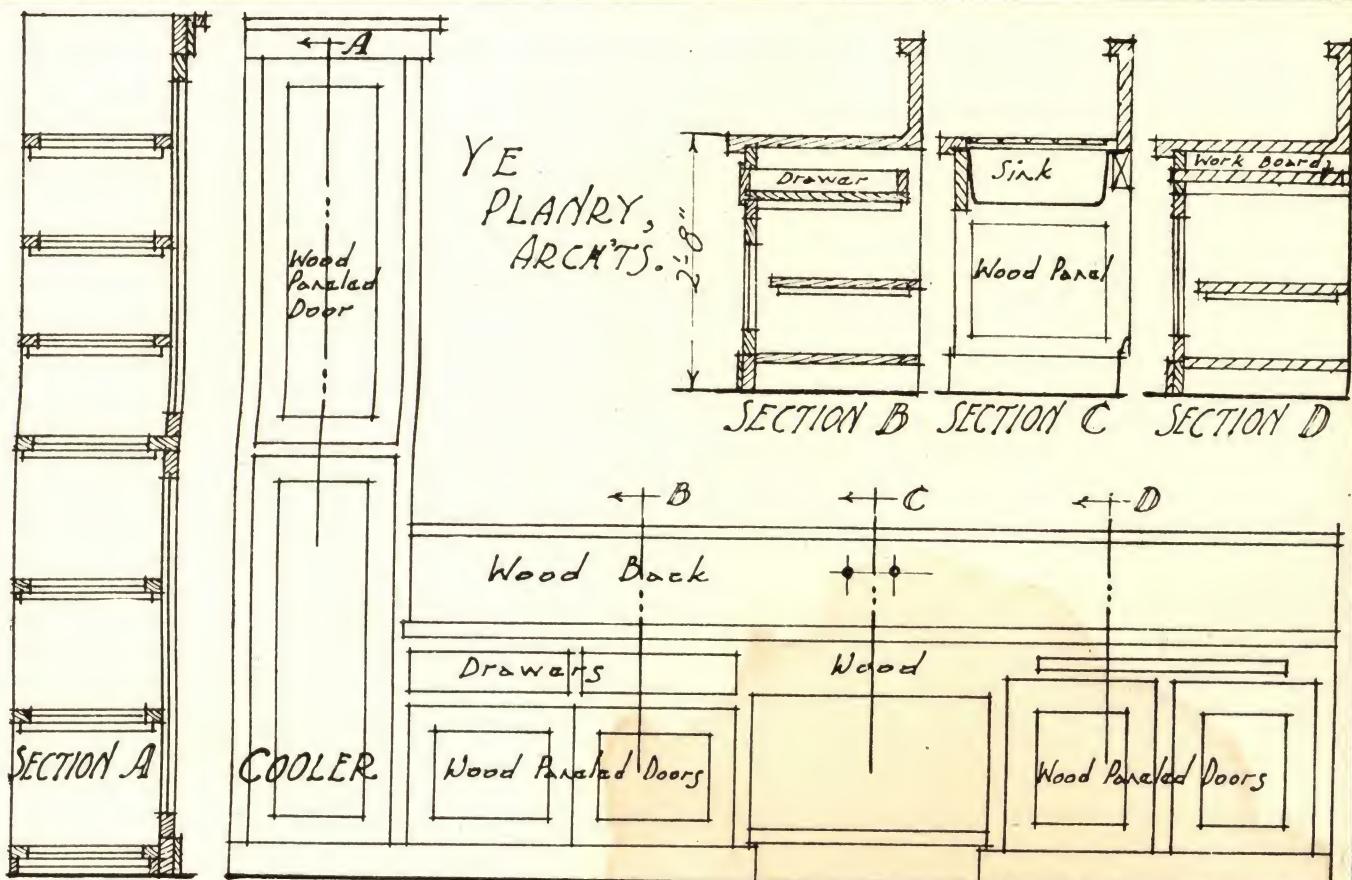
• ELEVATION •  
• WITH DRAWER •

N.B. All types have

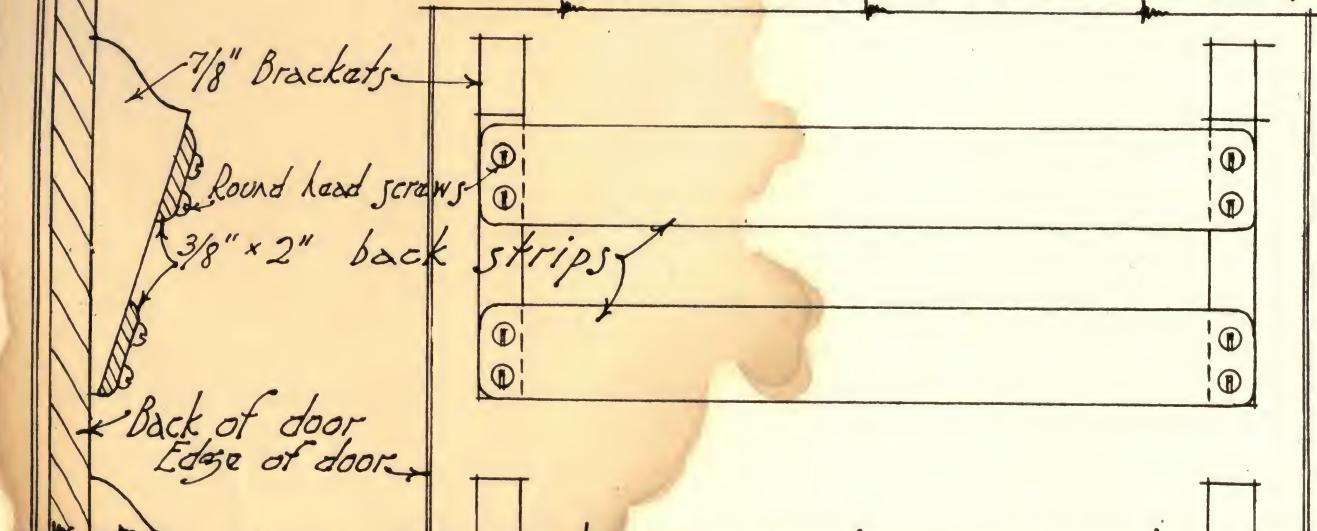
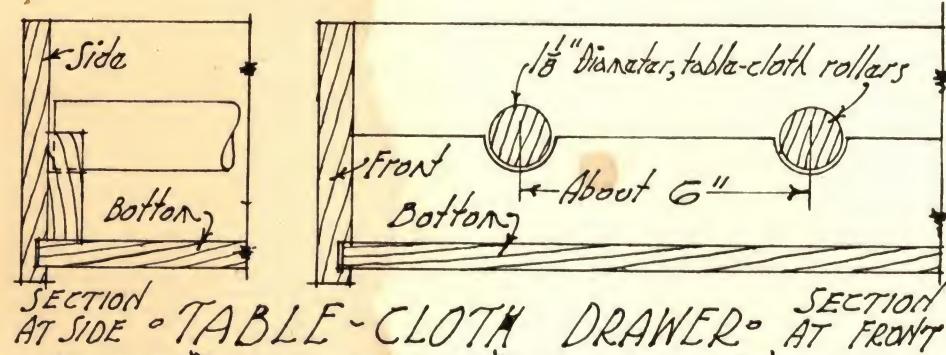
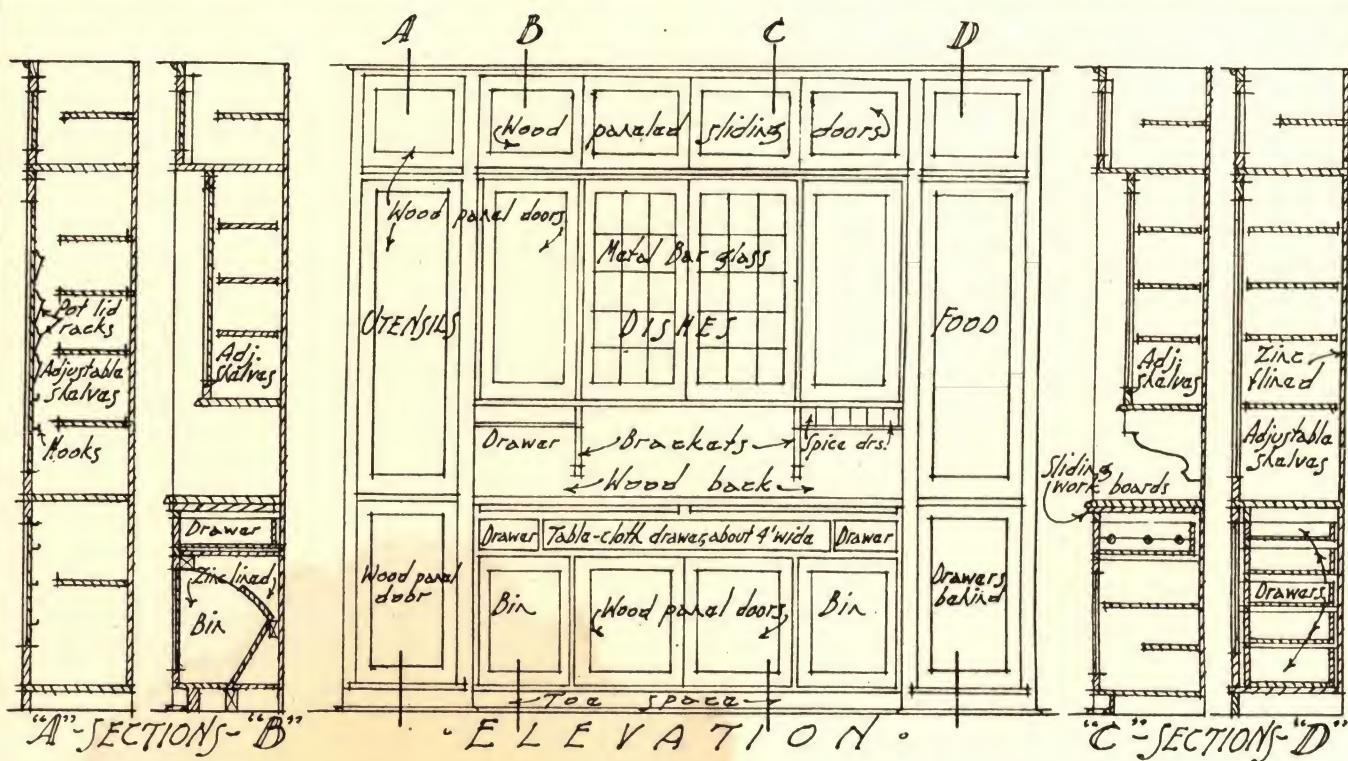
• SECTION •

• WITH OPEN SHELF •  
adjustable shelves.

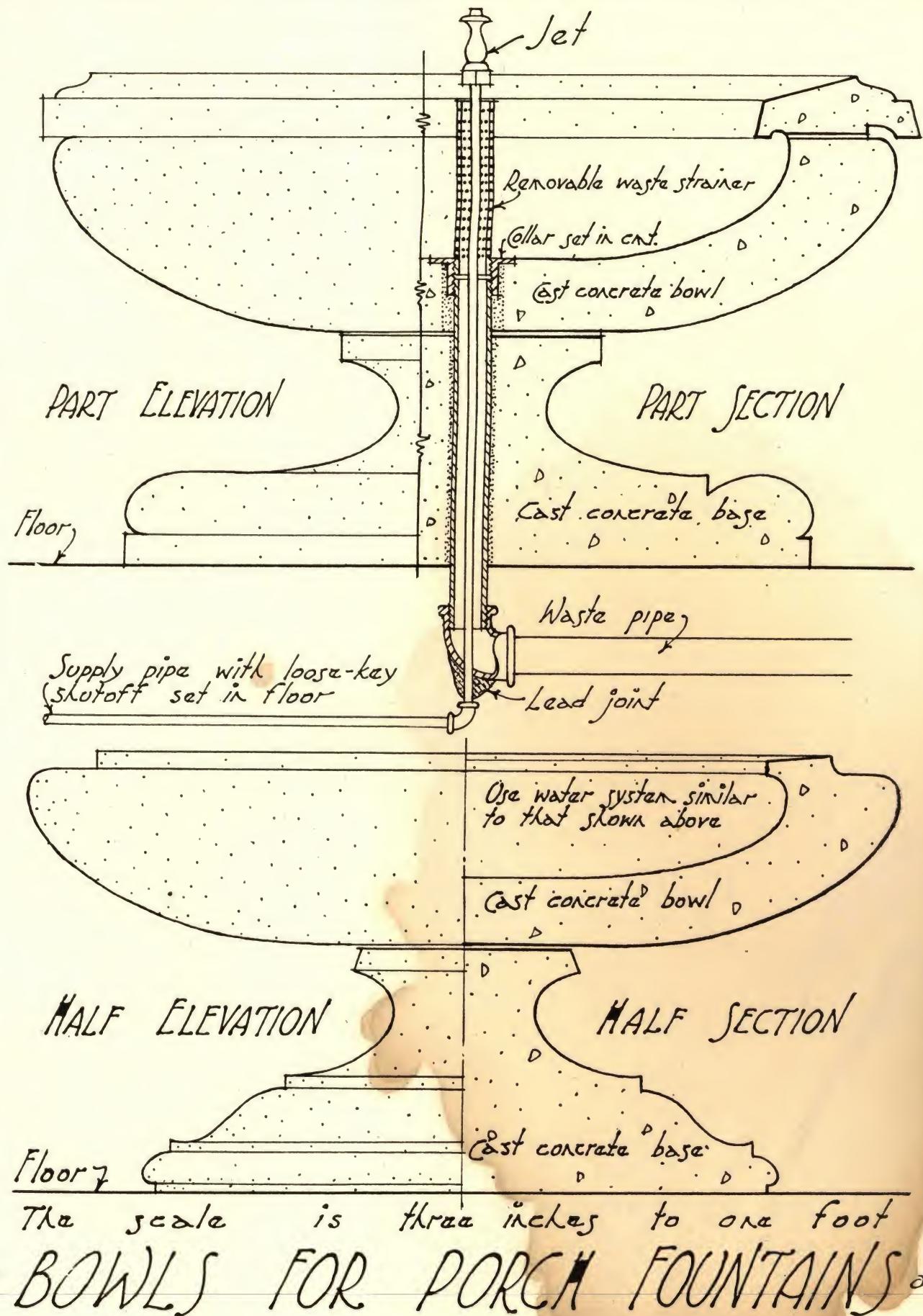
• MEDICINE CABINETS •  
• ONE INCH SCALE •

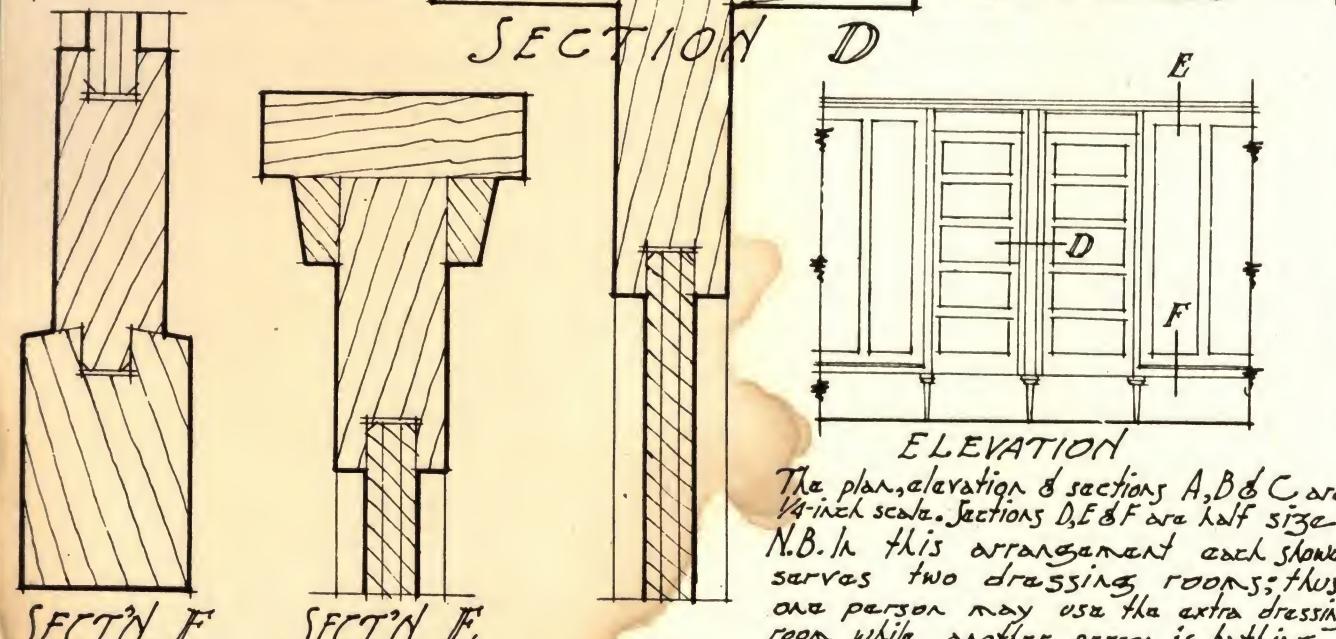
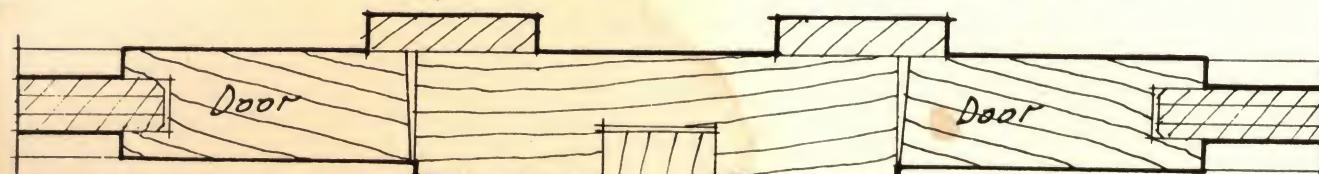
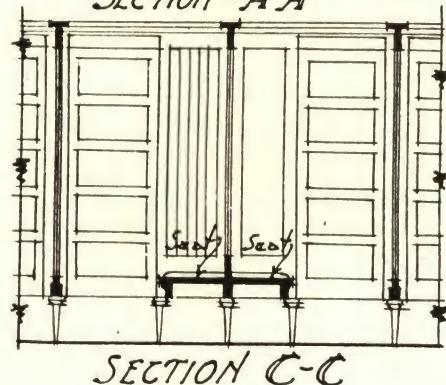
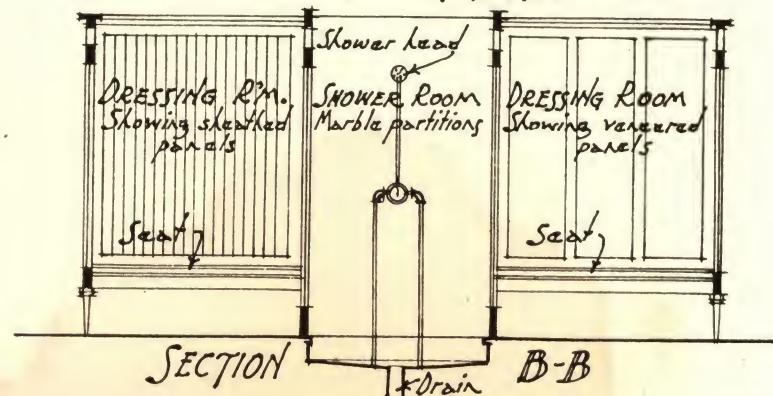
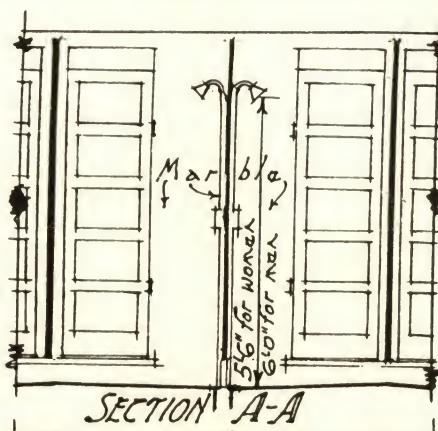
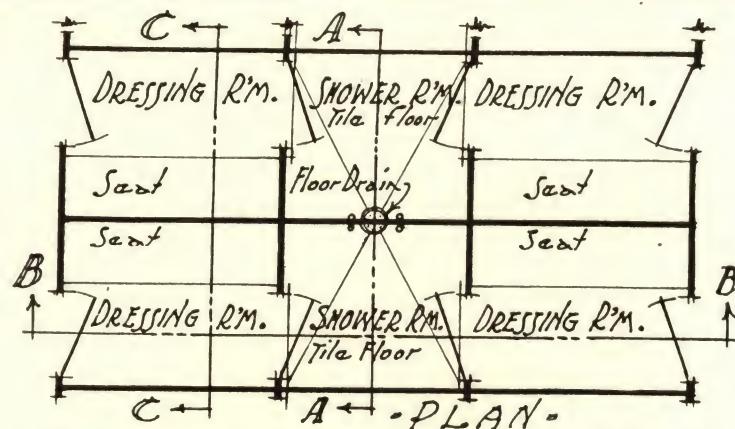


• KITCHEN • CUPBOARDS •  $\frac{1}{2}$  Inch to  
1 foot; Scale.



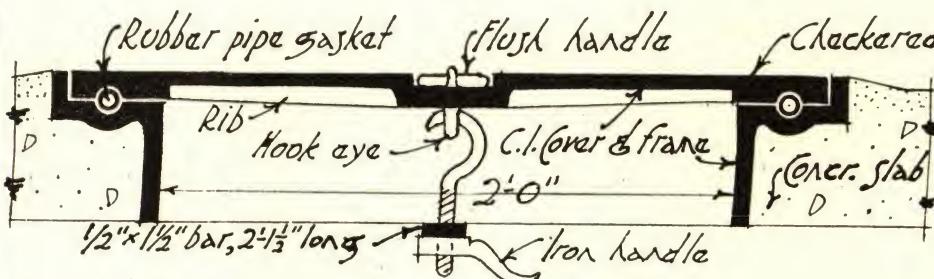
PART SECTION • POT LID RACK • PART ELEVATION.  
THE DETAILS ARE • A KITCHEN CABINET • THE ELEVATION &  
3-INCH SCALE • SECTIONS ARE  $\frac{3}{8}$ " SCALE.



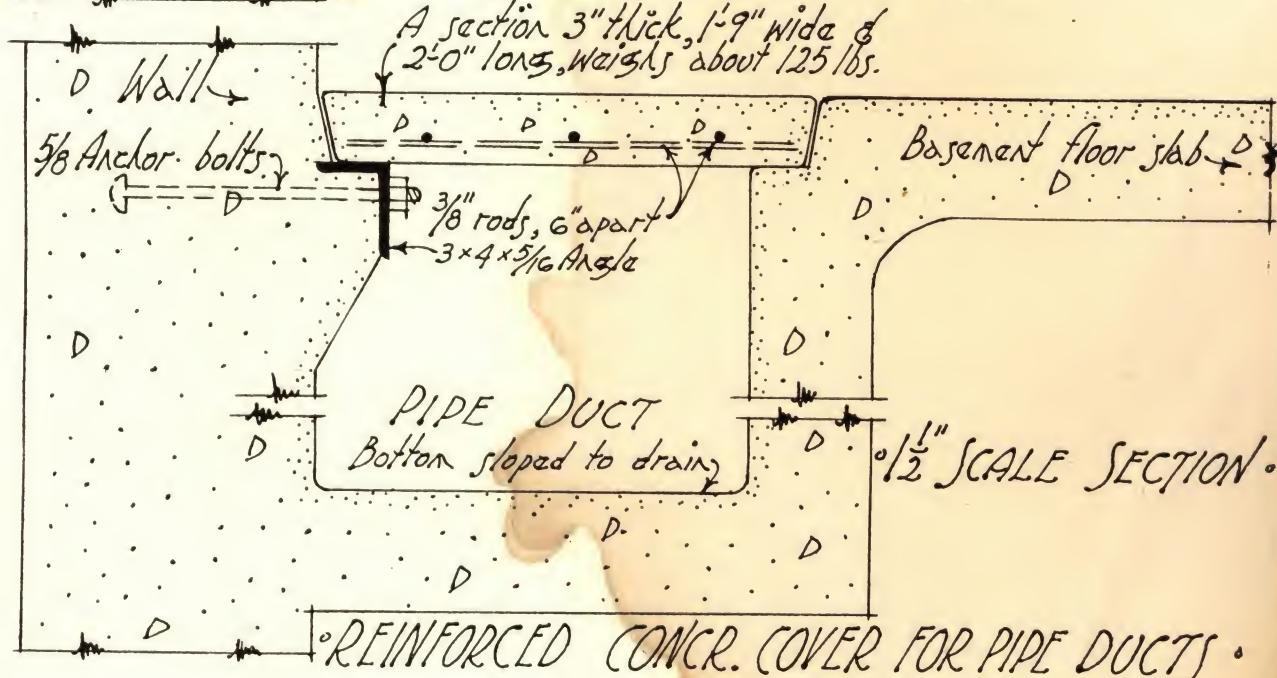
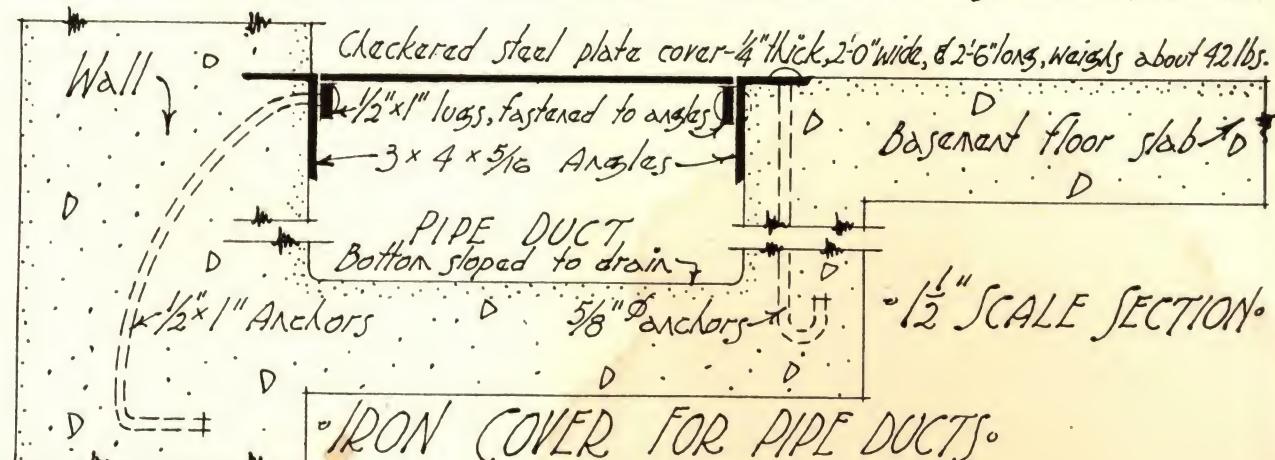


**ELEVATION**  
The plan, elevation & sections A, B & C are  $\frac{1}{4}$ -inch scale. Sections D, E & F are half size.  
N.B. In this arrangement each shower serves two dressing rooms; thus one person may use the extra dressing room while another person is bathing.

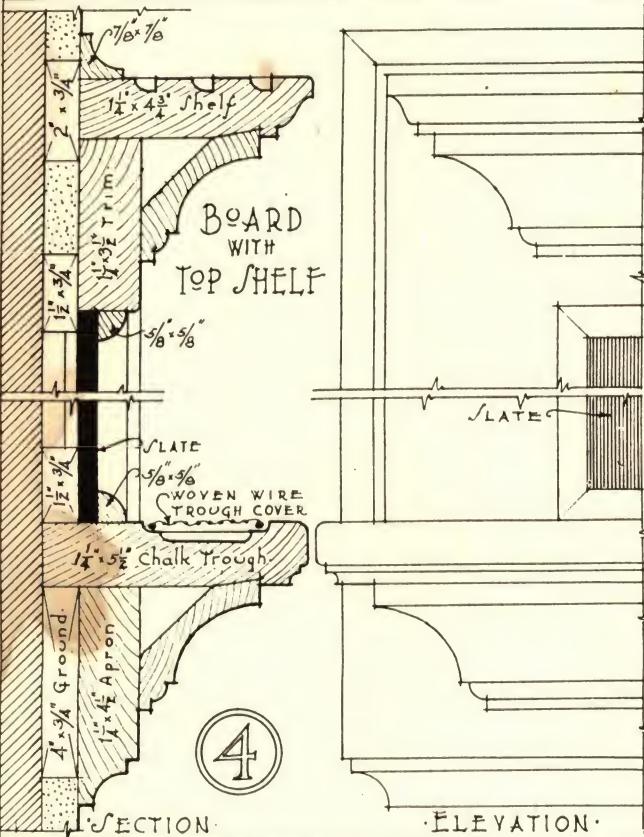
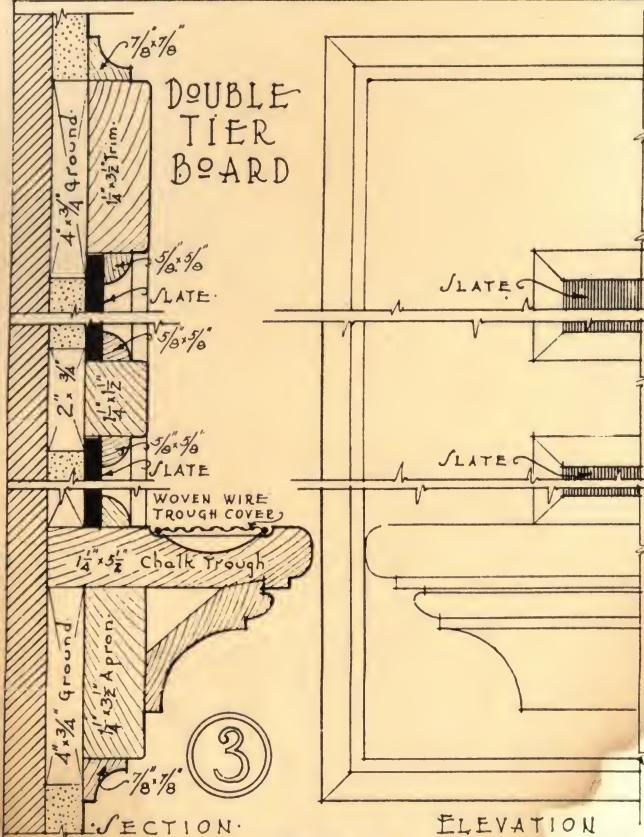
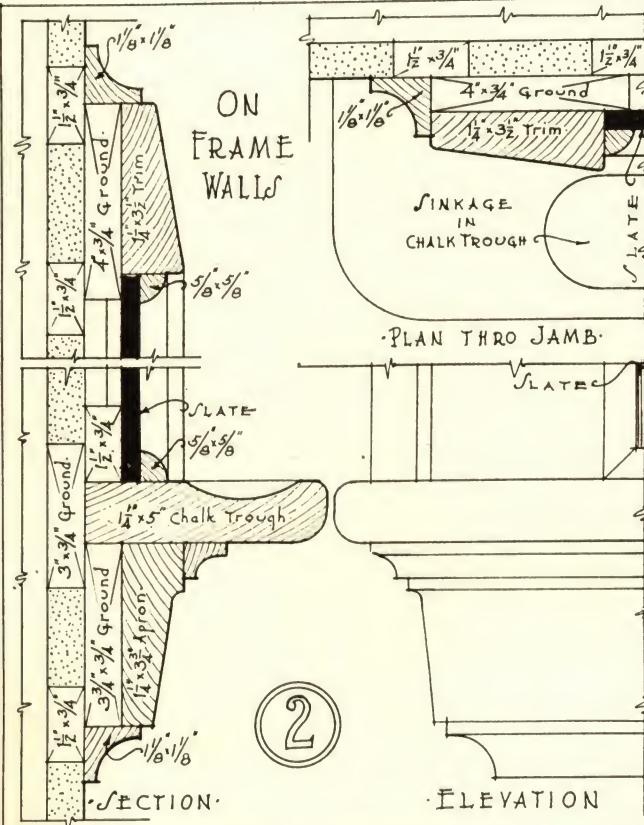
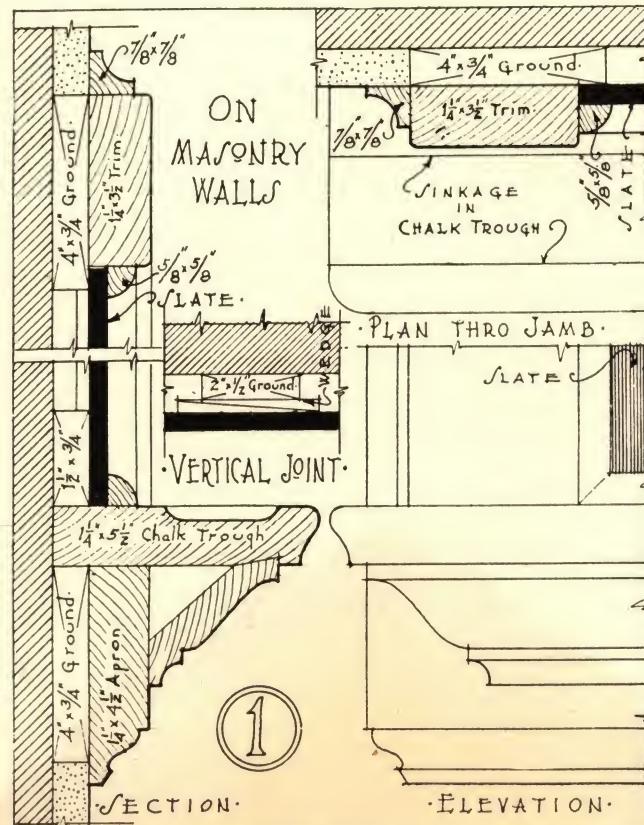
**DUPLEX SHOWER STALLS** **FOR A COUNTRY CLUB-HOUSE**  
PATTON, ROBERTS, DRUMMOND & WHITE, ASSOCIATED ARCH'TS.



•  $\frac{1}{2}$ " SCALE SECTION •  $\frac{1}{2}$ " SCALE PLAN •  
WEATHER & THIEF PROOF COAL HOLE COVER - M. J. SULLIVAN, ARCHT.



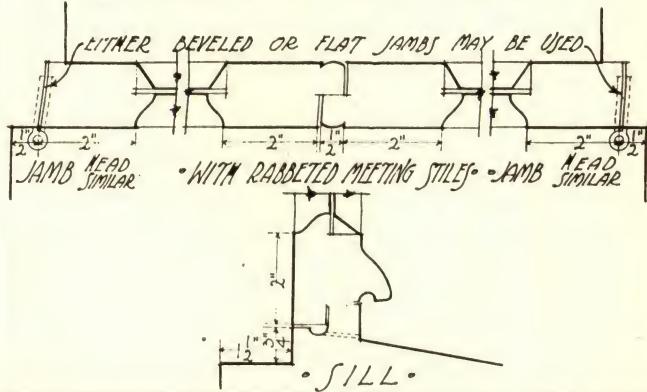
• COAL HOLE & PIPE DUCT COVERS.



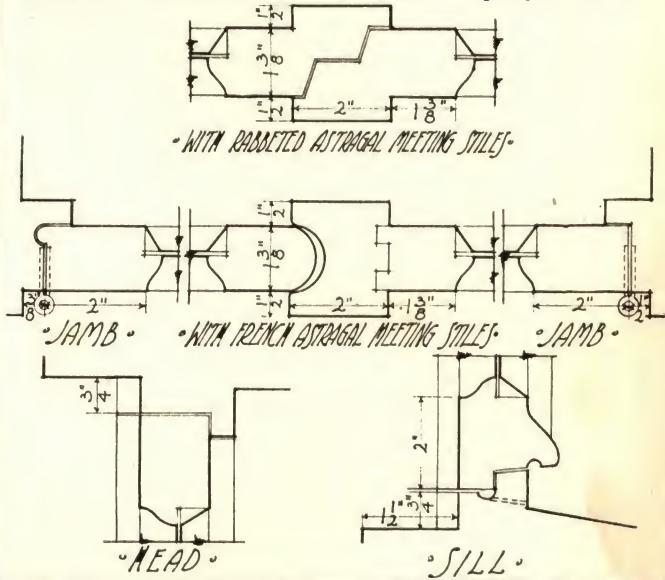
**BLACKBOARD INSTALLATION AS RECOMMENDED BY THE STRUCTURAL SERVICE BUREAU**

## CASEMENTS OPENING IN

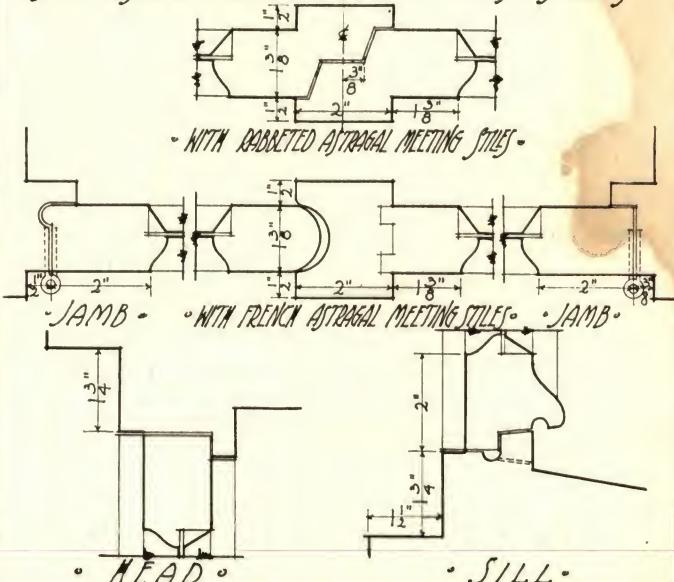
USING RIM OR MORTISE CASEMENT  
FASTENER OR TURNBUCKLE & ADJUSTER  
FOR SASH NOT OVER 4'-0" HIGH



## USING CREMONE BOLT & ADJUSTER

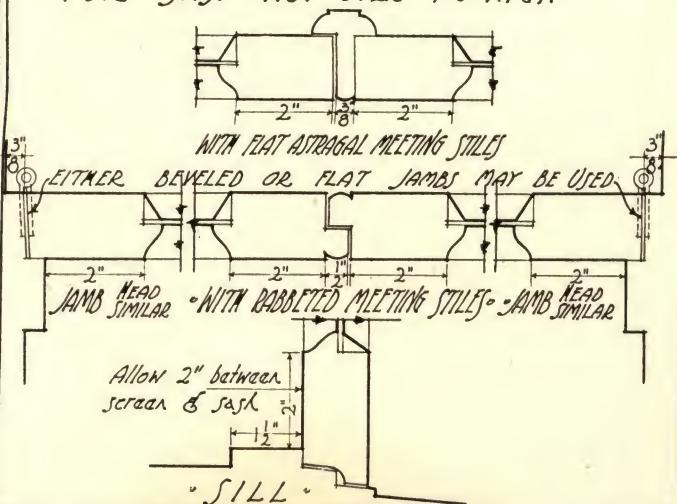


## USING ESPAGNOLETTE BOLT & ADJUSTERS

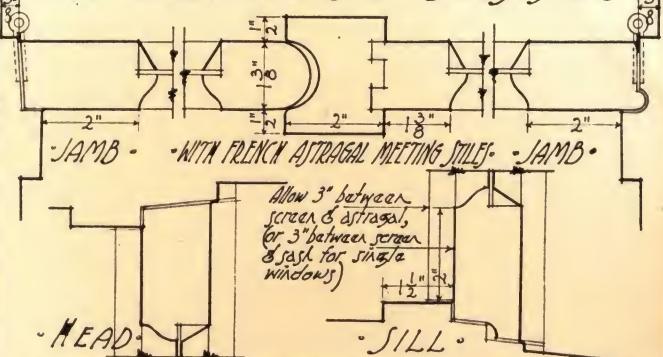


## CASEMENTS OPENING OUT

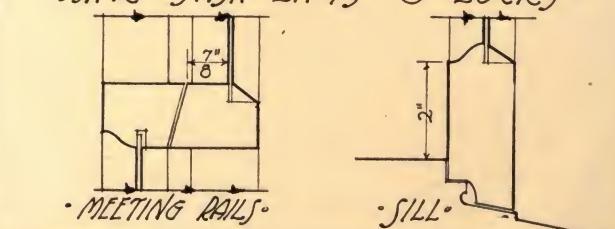
USING RIM OR MORTISE CASEMENT  
FASTENER OR TURNBUCKLE & ADJUSTER  
FOR SASH NOT OVER 4'-0" HIGH



## USING CREMONE BOLT & ADJUSTER



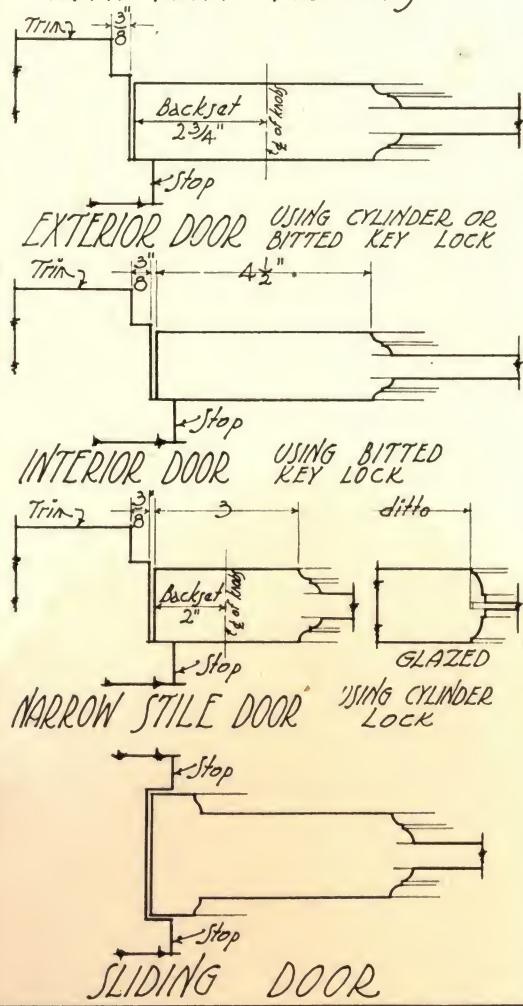
## DOUBLE-HUNG SASH USING SASH LIFTS & LOCKS



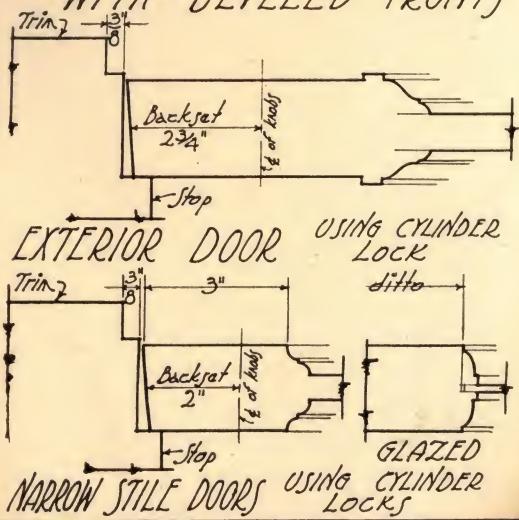
N.B. ALL SECTIONS ARE 3-INCH SCALE.  
MEASUREMENTS GIVEN ARE MINIMUM FOR STANDARD HARDWARE.  
THE SECTIONS SHOW DOUBLE CASEMENTS, BUT THE REQUIREMENTS  
FOR SINGLE CASEMENTS ARE EXACTLY SIMILAR, OMITTING MEETING STILES.  
EITHER FLAT OR BEVELED JAMBS (WITH OR WITHOUT TONGUE ON KNOB SIDE) MAY BE USED.

## WINDOWS FOR STANDARD HARDWARE AS RECOMMENDED BY TWELVE LEADING HARDWARE MANUFACTURERS

## SINGLE DOORS WITH FLAT FRONTS



## WITH BEVELED FRONTS

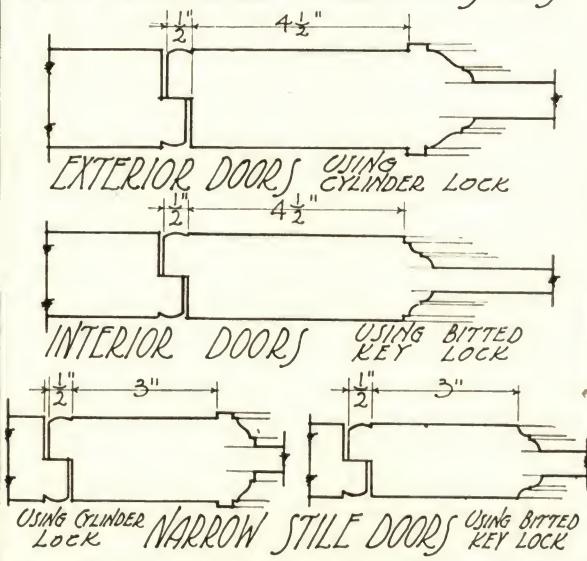


THE SECTION'S ARE  
3-INCH SCALE

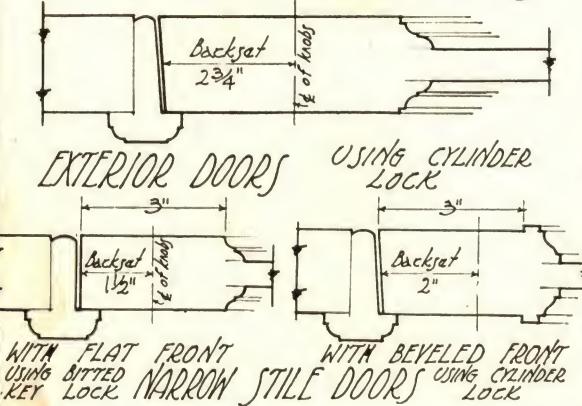
DOORS FOR STANDARD HARDWARE

AS RECOMMENDED BY TWELVE  
LEADING HARDWARE MANUFACTURERS

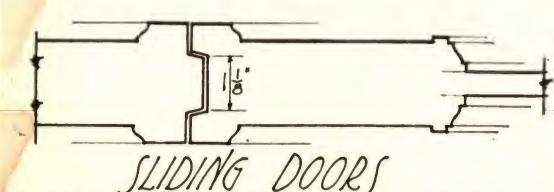
## DOUBLE DOORS WITH RABBETED MEETING STILES



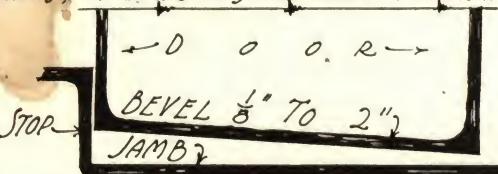
## WITH FLAT ASTRAGAL MEETING STILES



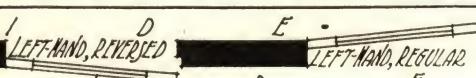
## SLIDING DOORS

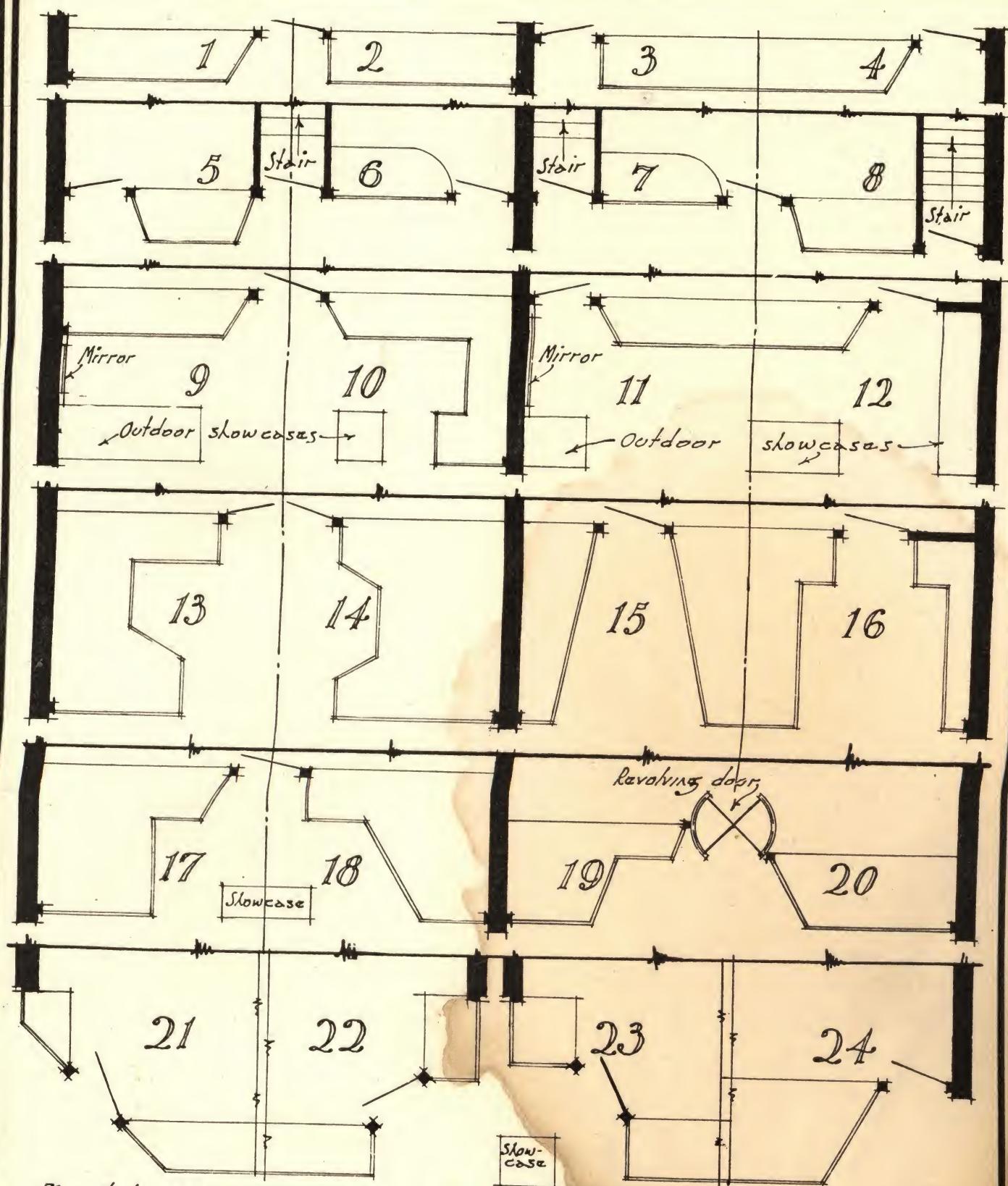


N.B. MEASUREMENTS GIVEN ARE MINIMUM FOR STANDARD HARDWARE, BUT OTHER BACKSETS, & LOCKS FOR THICKER DOORS WITH BEVELED FRONTS, MAY BE MADE ON SPECIAL ORDER AT AN ADDITIONAL PRICE



## STANDARD BEVEL FOR ALL DOORS





Figs. 1 to 18 show popular types of fronts. Figs. 19 & 20 show applications of revolving doors. Figs. 21 to 24 show various treatments for corner stores.

## DIAGRAMS & VARIOUS PLANS FOR STORE FRONTS

STRUCTURAL STEEL WHEN ERECTED FREQUENTLY VARIES FROM EXACT FIGURED DIMENSIONS. FOR THIS REASON ALL SUPPORTS FOR TERRA COTTA INCLUDING ANGLES, RODS, ANCHORS, ETC., SHOULD BE DESIGNED SO AS TO PERMIT OF EASY ADJUSTMENT TO THE REASONABLE REQUIREMENTS OF CONSTRUCTION WHEN THE MATERIAL IS BEING SET.

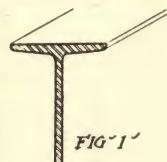


FIG. 1

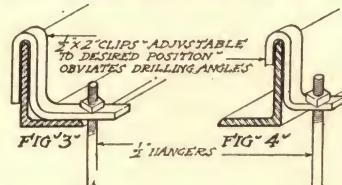
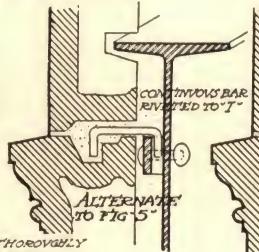
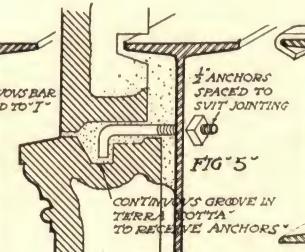


FIG. 3  
X2 CLIPS ADJUSTABLE TO DESIRED POSITION OBLIVATES DRILLING ANGLES



CONTINUOUS BAR ADJUSTABLE TO I

ALTERNATE TO FIG. 5



ANCHORS SPACED TO SUIT JOINTING

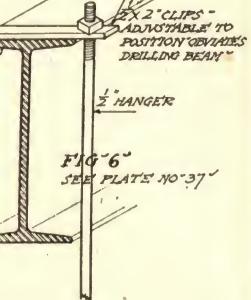


FIG. 6  
SEE PLATE NO. 37

ALL IRON WORK USED IN CONNECTION WITH ARCHITECTURAL TERRA COTTA SHOULD BE THOROUGHLY PROTECTED WITH A RUST PREVENTING PIGMENT.

FLANGES SHOULD ONLY BE SLOTTED FOR HANGERS IF NO OTHER METHOD IS PRACTICABLE AS IT ALLOWS OF LITTLE HORIZONTAL ADJUSTMENT. SEE FIG. 3, 4, 6 AND 8.

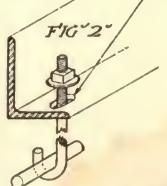
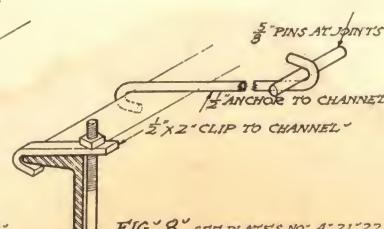


FIG. 2



5 PINS AT JOINTS

1/2" ANCHOR TO CHANNEL

1/2" X2 CLIP TO CHANNEL

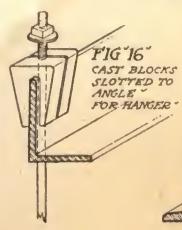


FIG. 16  
CAST BLOCKS SLOTTED TO ANGLE FOR HANGER

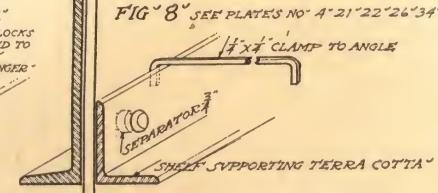


FIG. 8 SEE PLATES NO. 4, 21, 22, 26, 34 AND 35

1/4" X4 CLAMP TO ANGLE

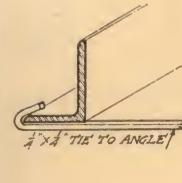


FIG. 15  
1/2" HANGER ADJUSTABLE ON CHANNEL TO DESIRED POSITION

5 PINS AT JOINTS

1/4" X4 TIE TO ANGLE



COPPER WIRE  
ANCHOR

FIG. 10 SEE PLATE NO. 34

1/2" SQ. ROD

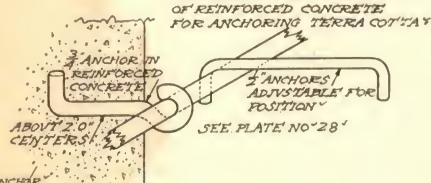


FIG. 9  
CONTINUOUS RODS ON FACE OF REINFORCED CONCRETE FOR ANCHORING TERRA COTTA

ANCHORS ADJUSTABLE FOR POSITION

SEE PLATE NO. 28

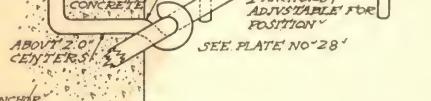


FIG. 12  
STANDARD 1/2" ROUND ANCHOR

5 PINS AT JOINTS

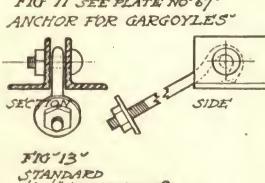


FIG. 11 SEE PLATE NO. 67  
ANCHOR FOR GARGOYLES

SECTION

SIDE

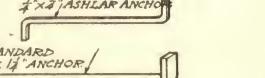


FIG. 13  
STANDARD 1/2" ASHLAR ANCHOR

STANDARD 1/2" ASHLAR ANCHOR

FIG. 14

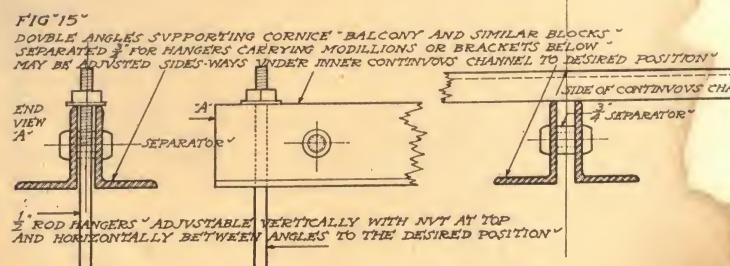


FIG. 15  
DOUBLE ANGLES SUPPORTING CORNICE, "BALCONY" AND SIMILAR BLOCKS SEPARATED AS FOR HANGERS CARRYING MODILLIONS OR BRACKETS BELOW MAY BE ADJUSTED SIDEWAYS UNDER INNER CONTINUOUS CHANNEL TO DESIRED POSITION

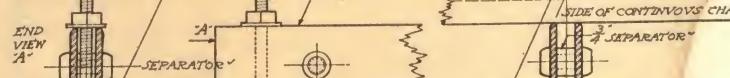
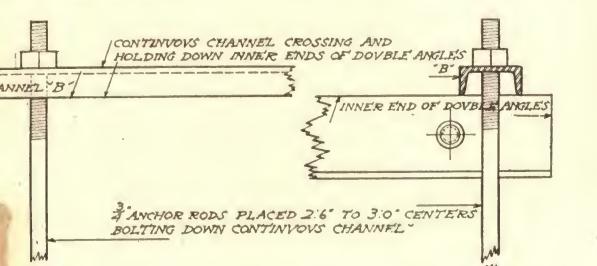


FIG. 15  
1/2" ROD HANGERS ADJUSTABLE VERTICALLY WITH NUT AT TOP AND HORIZONTALLY BETWEEN ANGLES TO THE DESIRED POSITION



CONTINUOUS CHANNEL CROSSING AND HOLDING DOWN INNER ENDS OF DOUBLE ANGLES

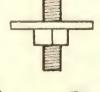
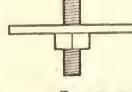
INNER END OF DOUBLE ANGLES

ANCHOR RODS PLACED 2'6" TO 3'0" CENTERS BOLTING DOWN CONTINUOUS CHANNEL

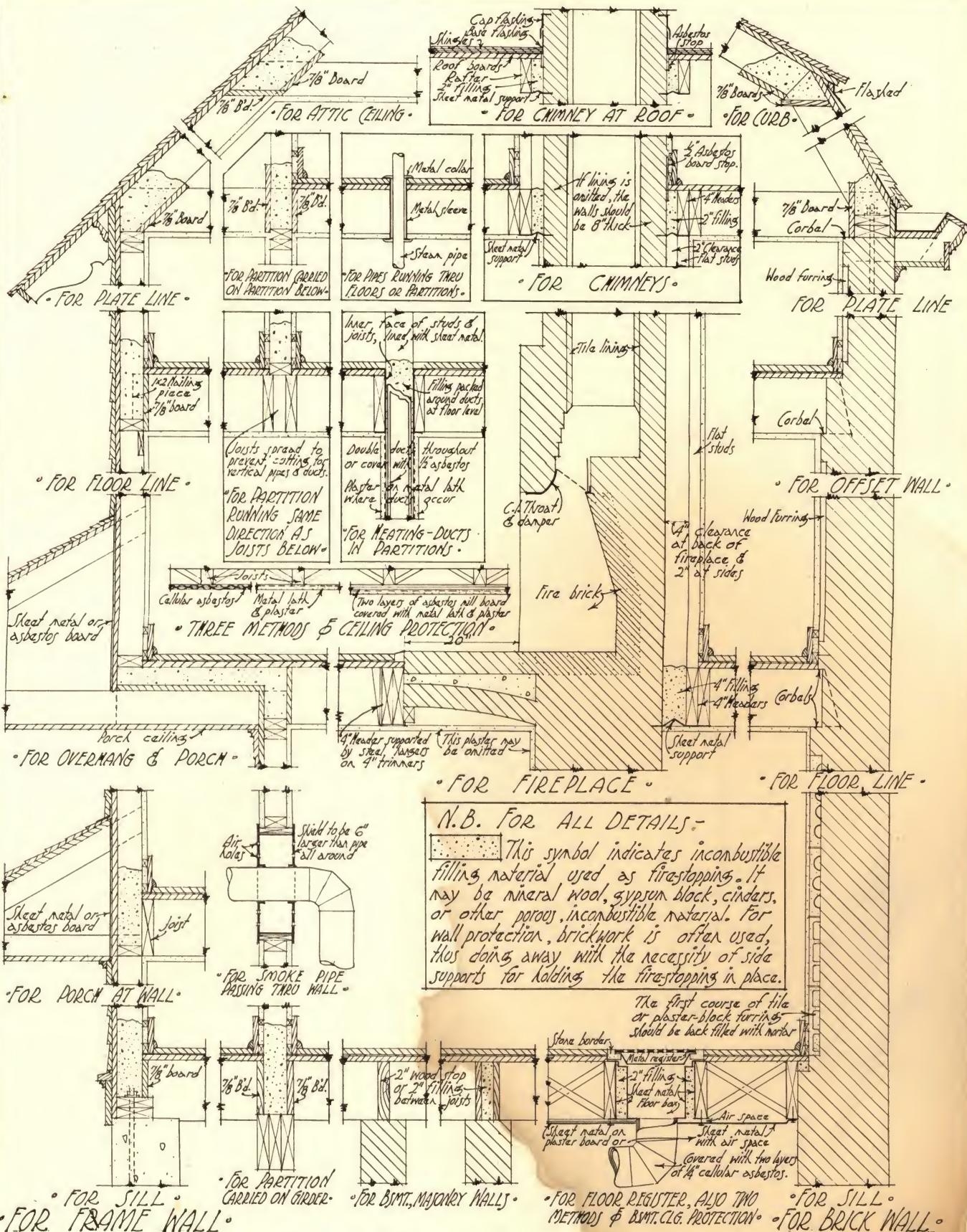
DIAGRAMS OF CORNICE, "MODILLION" AND BRACKET SUPPORT  
SEE PLATES NO. 12, 13, 22, 23, 24 AND 25



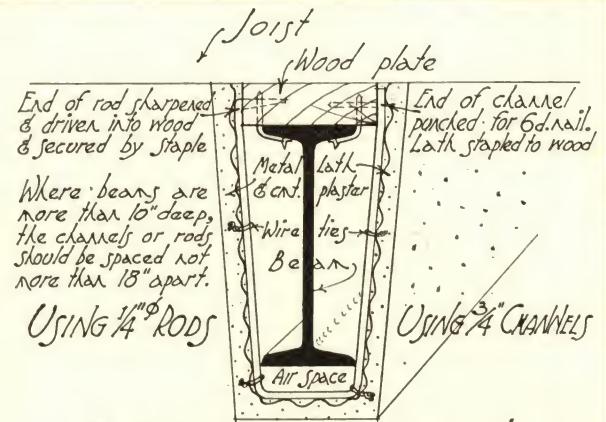
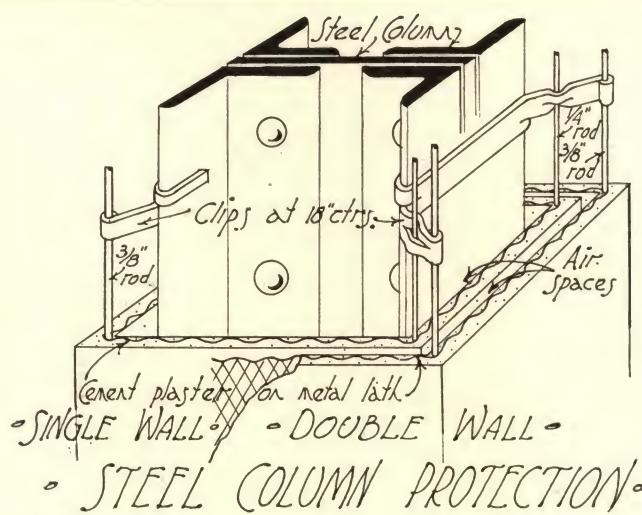
PIPE FOR CARRYING BRACKETS AND MODILLIONS OUTER END RESTING IN HANGER INNER END IN MASONRY



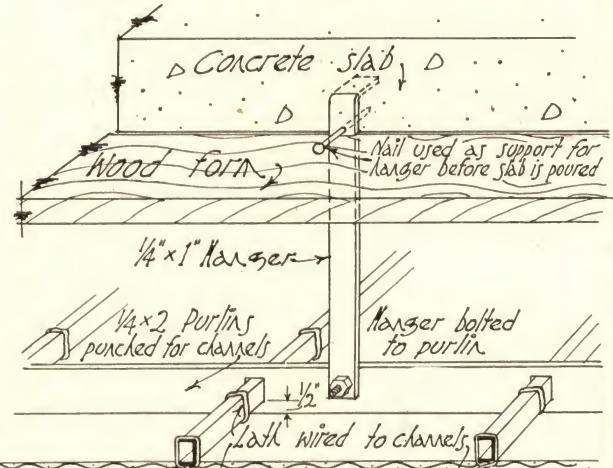
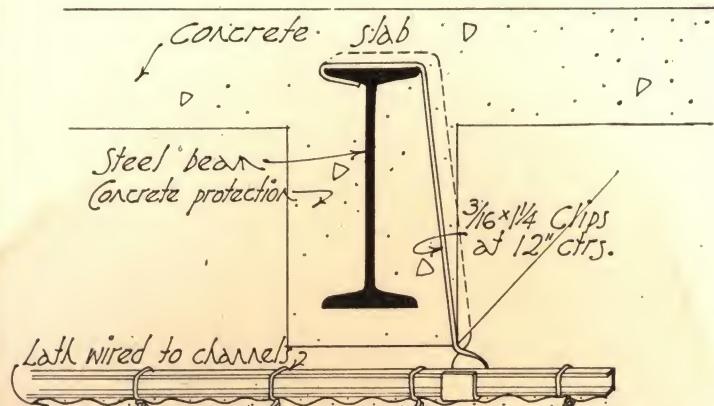
## METHODS USED IN SETTING TERRA COTTA AS RECOMMENDED BY THE NATIONAL TERRA COTTA SOCIETY



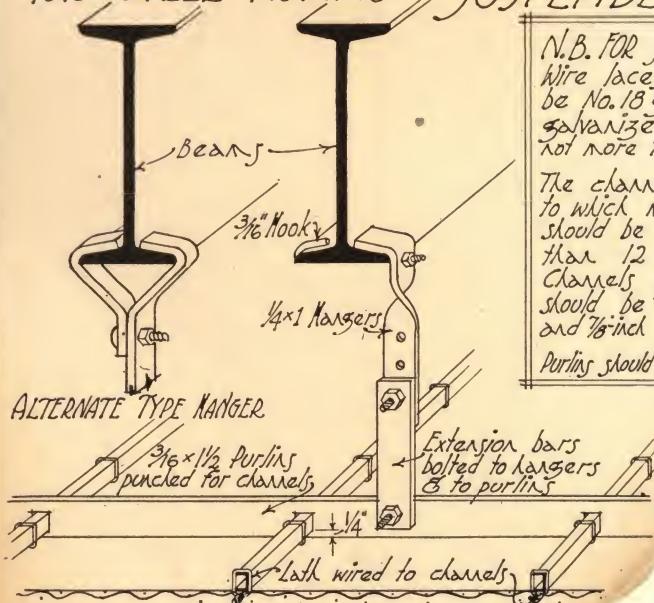
ALL OF THESE DETAILS ARE  $\frac{1}{2}$  INCH SCALE. FIRE-STOPPING. AS RECOMMENDED BY THE NAT'L BOARD OF FIRE INSURERS.



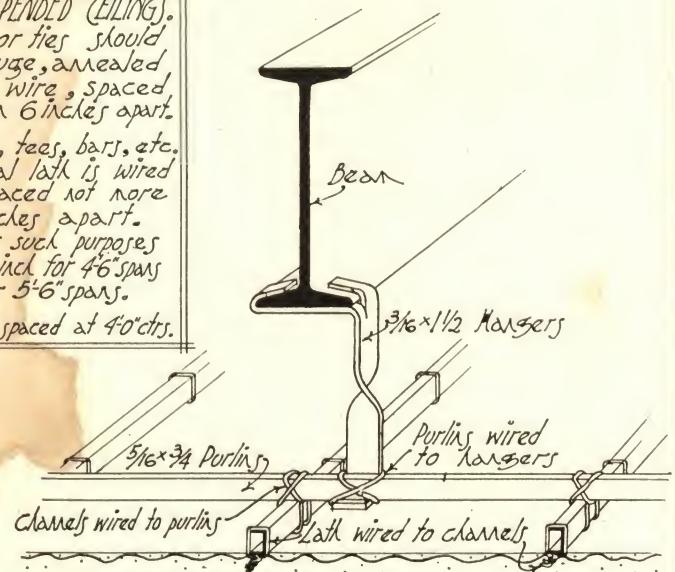
### • BEAM • PROTECTION •



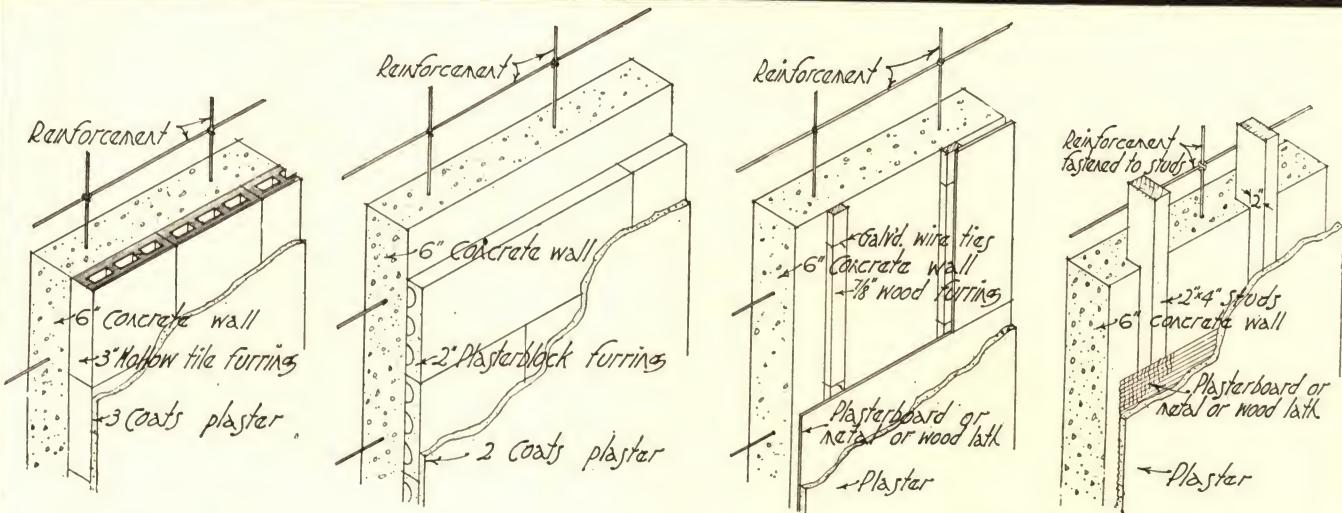
### • FOR STEEL FRAMING • SUSPENDED CEILINGS • FOR CONCRETE SLAB •



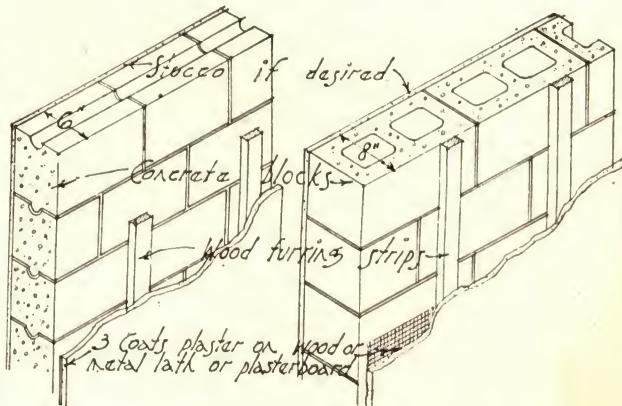
N.B. FOR SUSPENDED CEILINGS.  
Wire laces or ties should be No. 18 gauge, annealed galvanized wire, spaced not more than 6 inches apart.  
The channels, tees, bars, etc. to which metal lath is wired should be spaced not more than 12 inches apart.  
Channels for such purposes should be  $\frac{3}{4}$  inch for 4'6" spans and  $\frac{1}{2}$  inch for 5'6" spans.  
Purlins should be spaced at 40" ctrs.



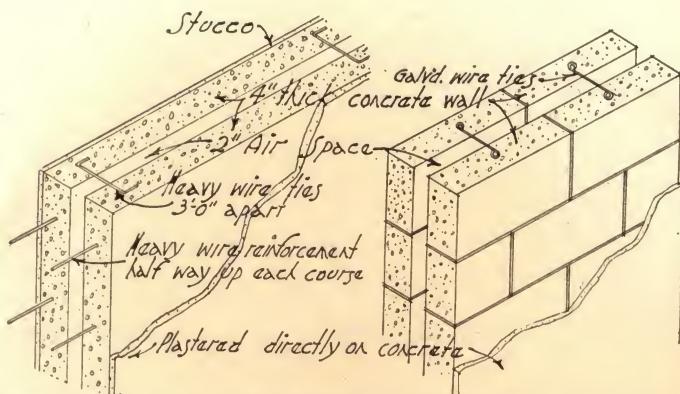
TWO-PIECE HANGER - SUSPENDED CEILINGS - ONE-PIECE HANGER  
- METAL - LATH - CONSTRUCTION -  
AS RECOMMENDED BY THE ASSOCIATED METAL LATH MANUFACTURERS -



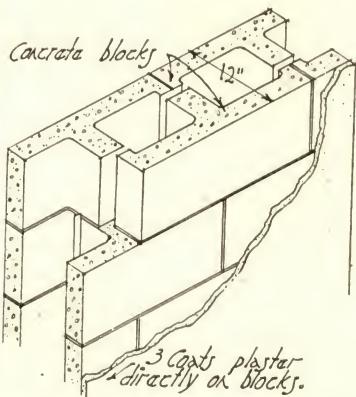
### MONOLITHIC TYPES OF CONSTRUCTION



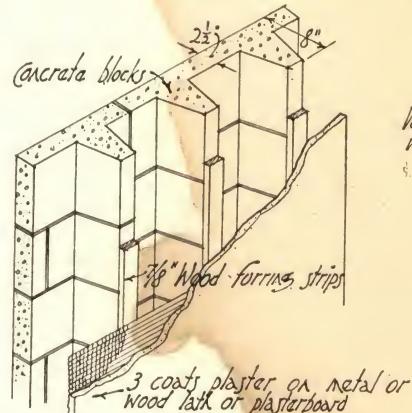
- SOLID BLOCKS.
- HOLLOW BLOCKS.
- SINGLE BLOCK TYPES.



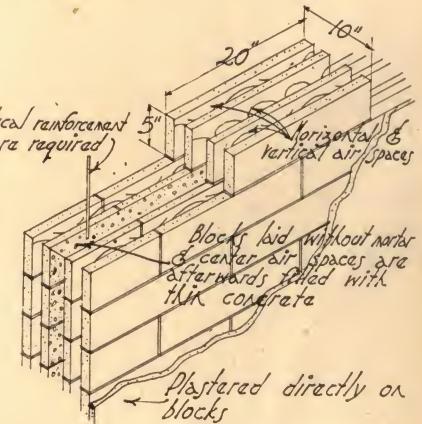
- USING WALL MACHINE
- USING SOLID BLOCKS
- DOUBLE WALL TYPES



- TWO-PIECE WALL



- ONE-PIECE WALL

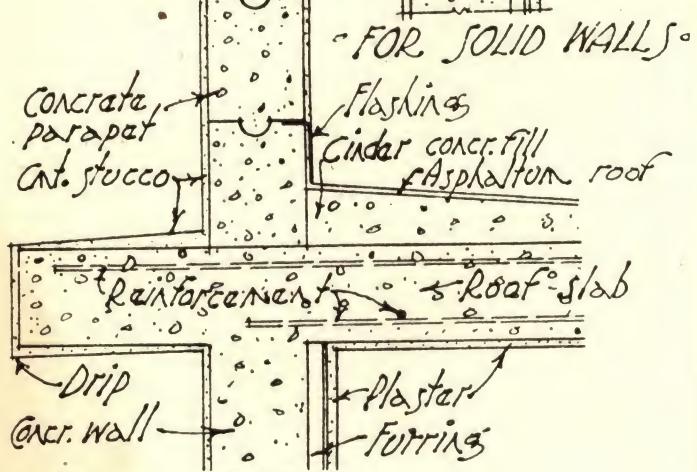
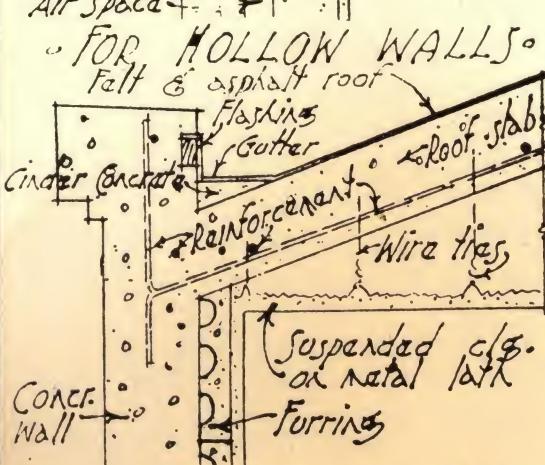
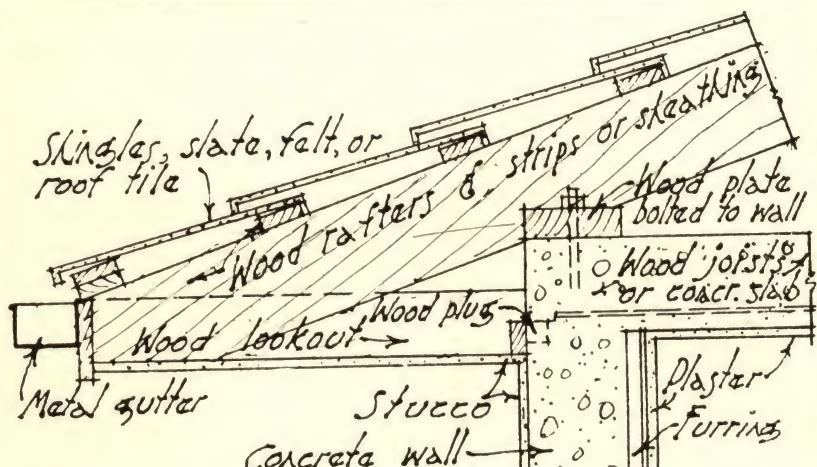
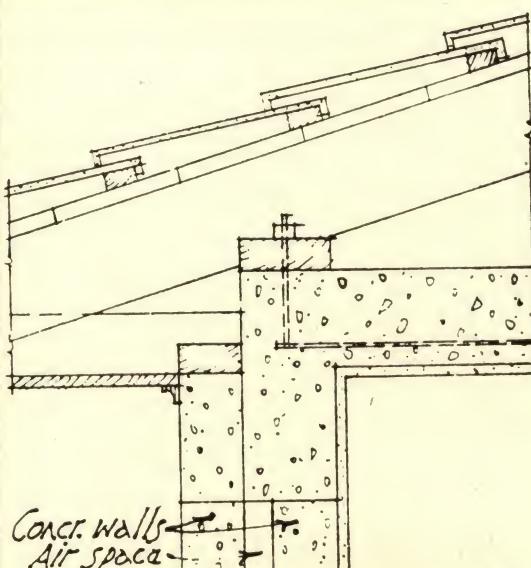


- SOLID CORE TYPE

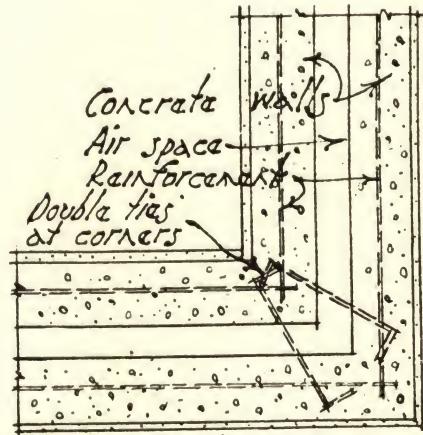
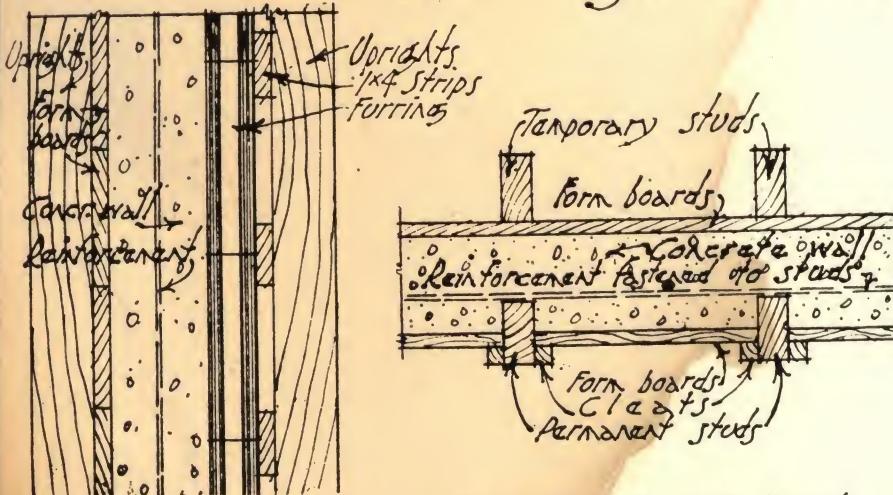
### BLOCK CONSTRUCTION

### CONCRETE WALL CONSTRUCTION

APPROXIMATELY  $\frac{1}{2}$ -INCH SCALE PERSPECTIVES

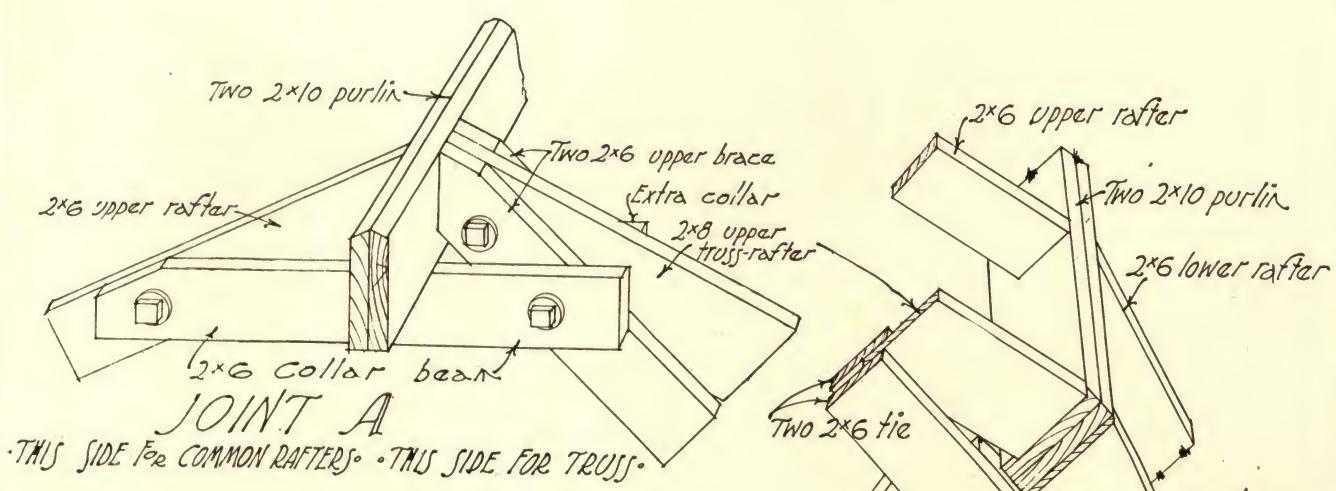


## PITCHED - SLAB ROOFS - FLAT - ROOF SECTIONS -



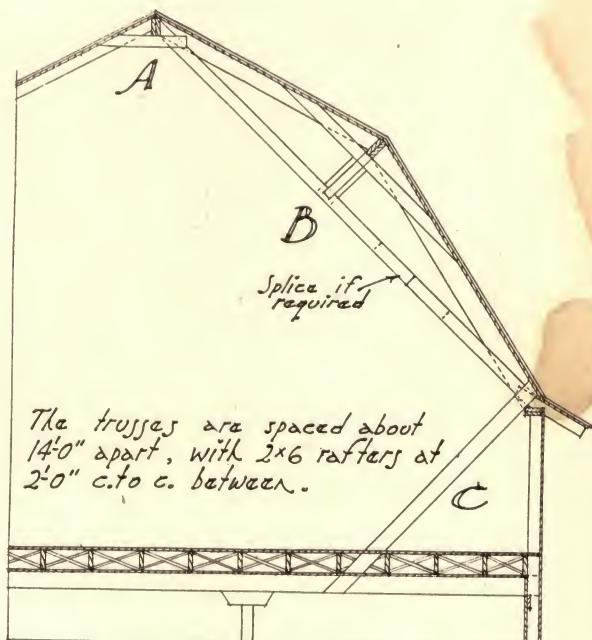
FORMWORK FOR TILE FURRING. - FORMWORK FOR STUD FURRING. - CORNER FOR HOLLOW WALLS.

## CONCRETE DETAILS ONE - INCH SCALE.

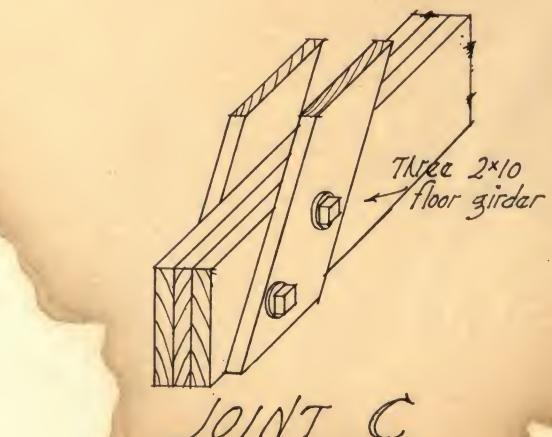
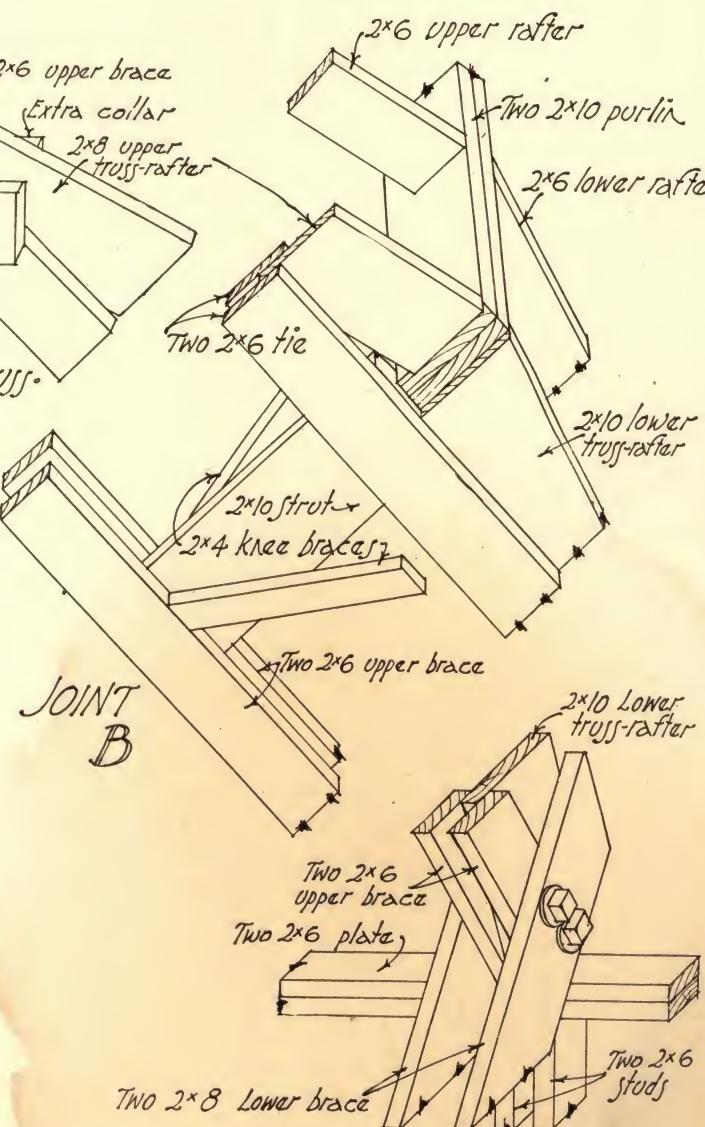


## TRUSSED ROOF BARN DETAILS

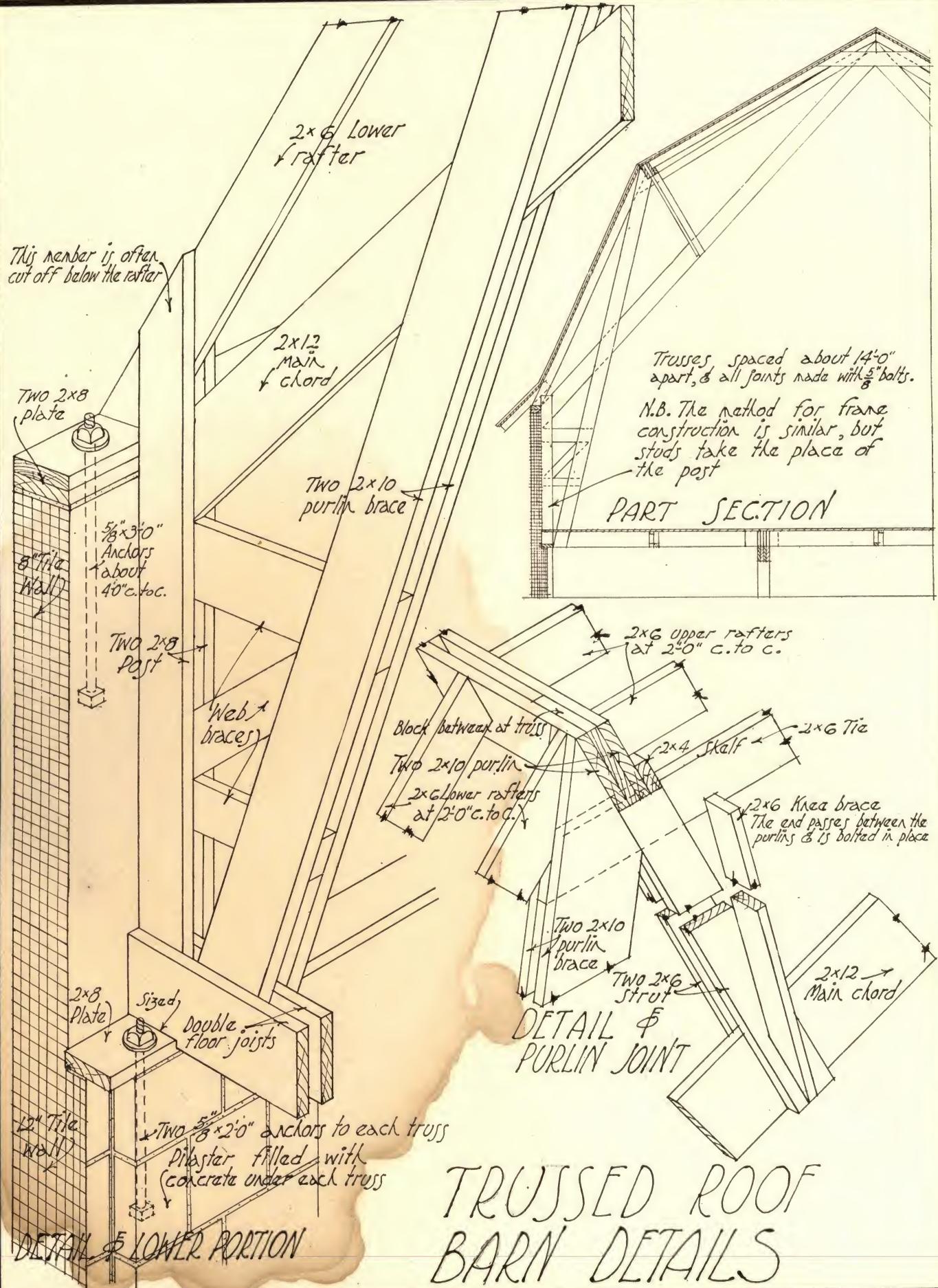
THE SECTION IS  $\frac{1}{8}$ -INCH SCALE  
THE DETAILS ARE APPROXIMATELY  
 $\frac{3}{4}$ -INCH SCALE PERSPECTIVES.

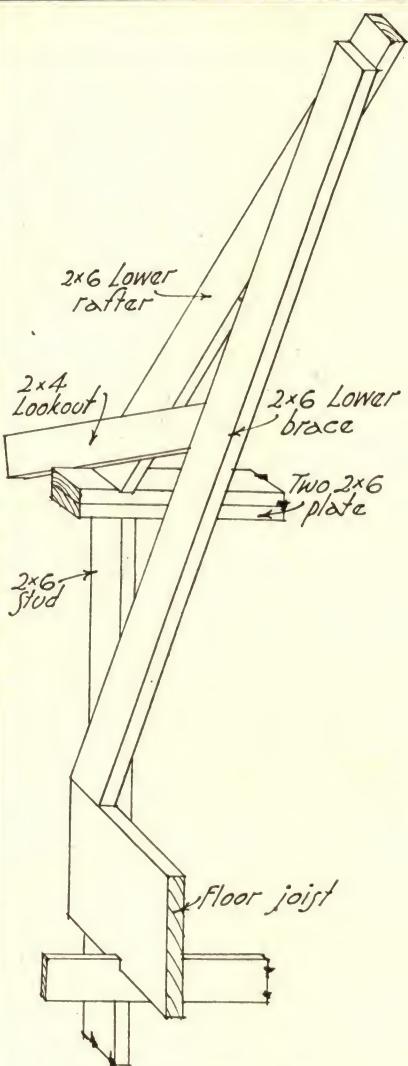


PART SECTION

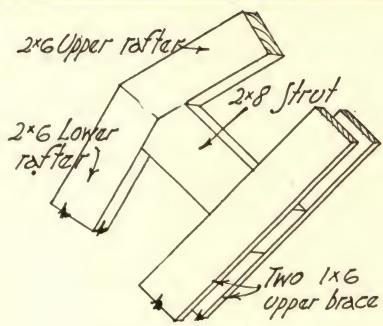


JOINT C

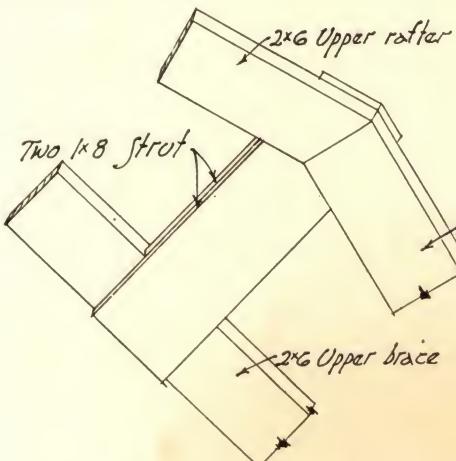




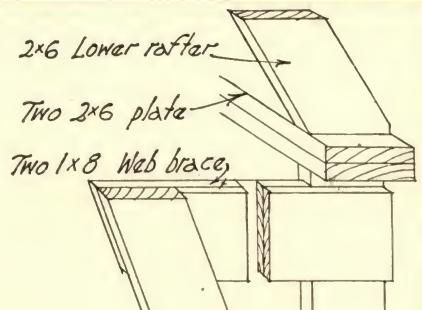
JOINT A



JOINT B



JOINT C



2x6 Stud

2x6 Lower brace

2x6 Lower rafter

2x6 Stud

2x6 Lower brace

2x6 Lower rafter

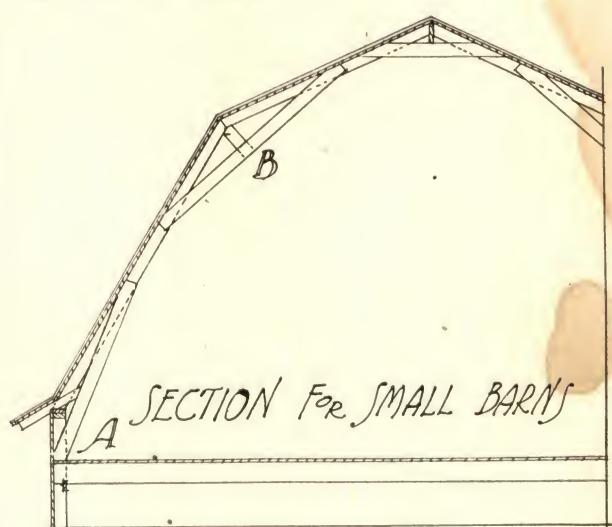
2x6 Upper brace

2x6 Lower rafter

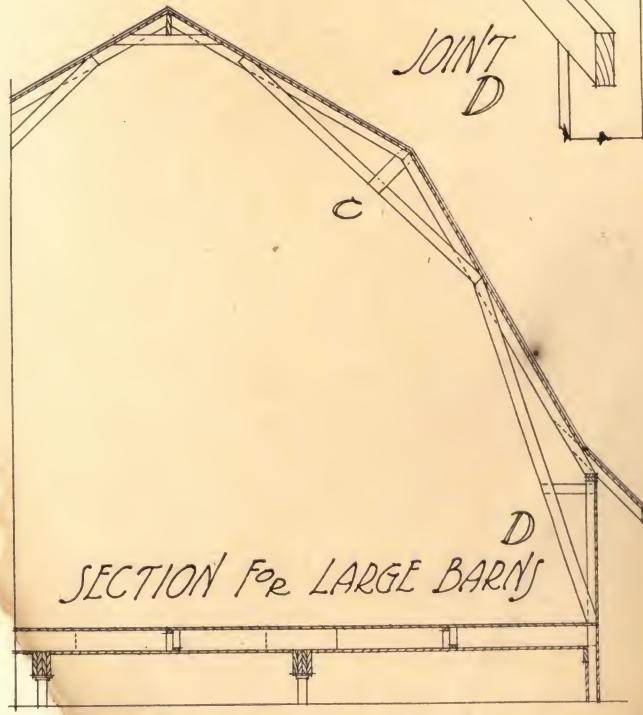
2x6 Stud

2x6 Lower brace

2x6 Lower rafter



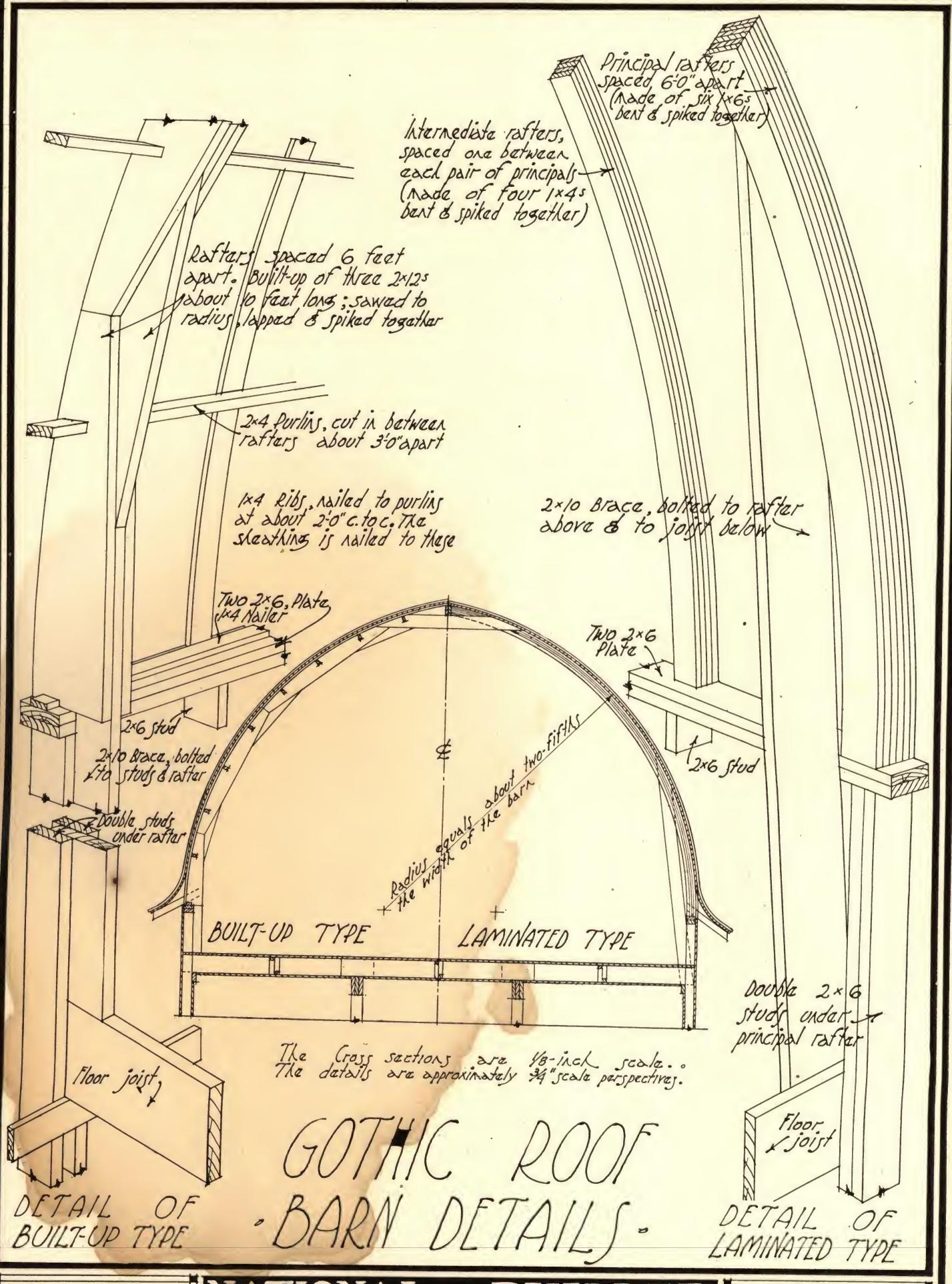
SECTION For SMALL BARN'S

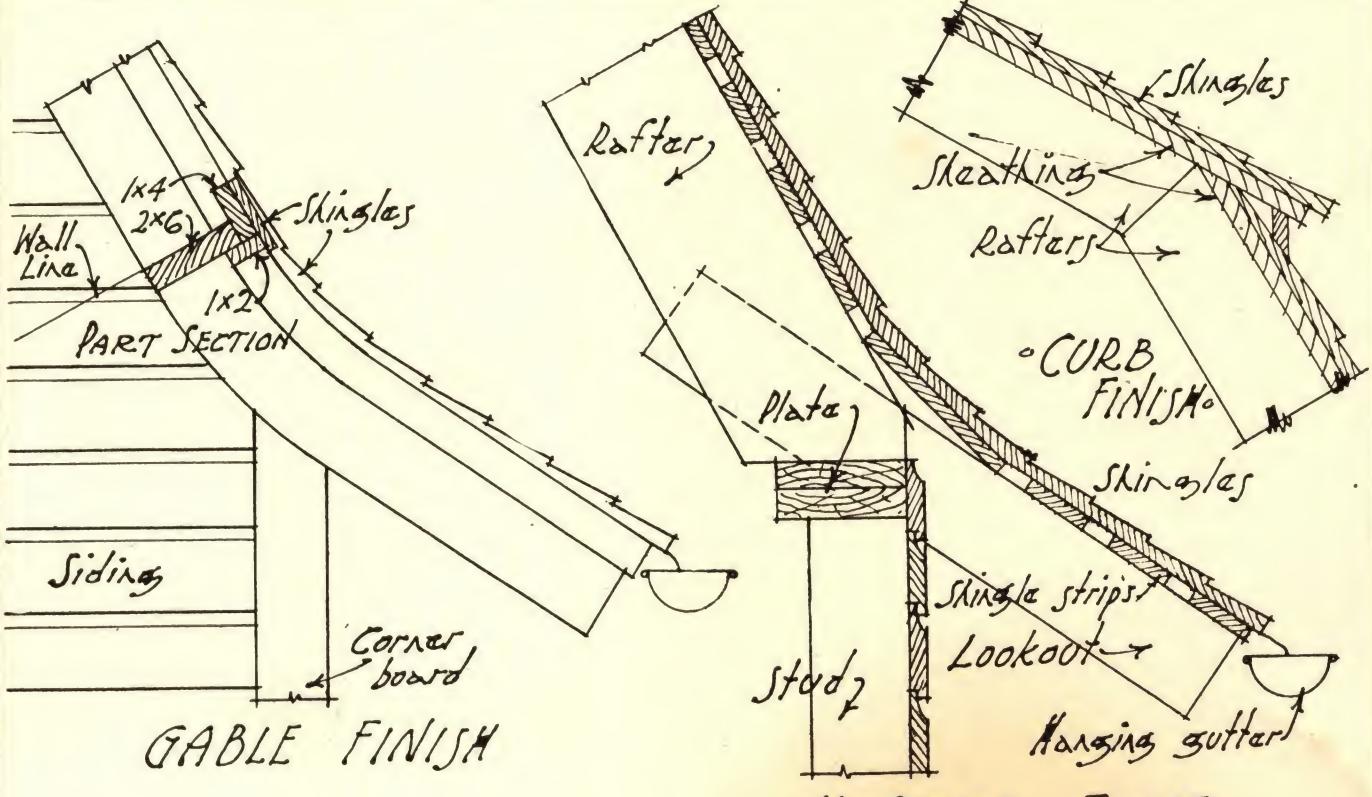


SECTION For LARGE BARN'S

THE SECTIONS ARE  $\frac{1}{8}$  INCH SCALE. THE DETAILS ARE APPROXIMATELY  $\frac{3}{4}$ " SCALE PERSPECTIVES. ROOF FRAMING - BARN DETAILS -

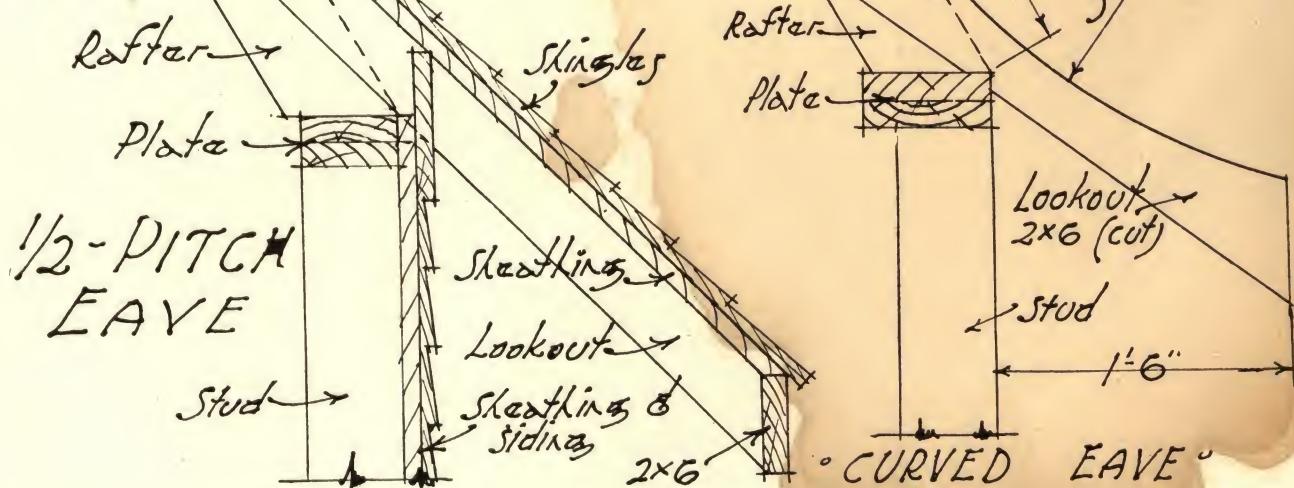
IN THESE TYPES THE RAFTERS ARE SPACED ABOUT 2'0" C. TO C. & EACH ONE IS BRACED AS SHOWN.

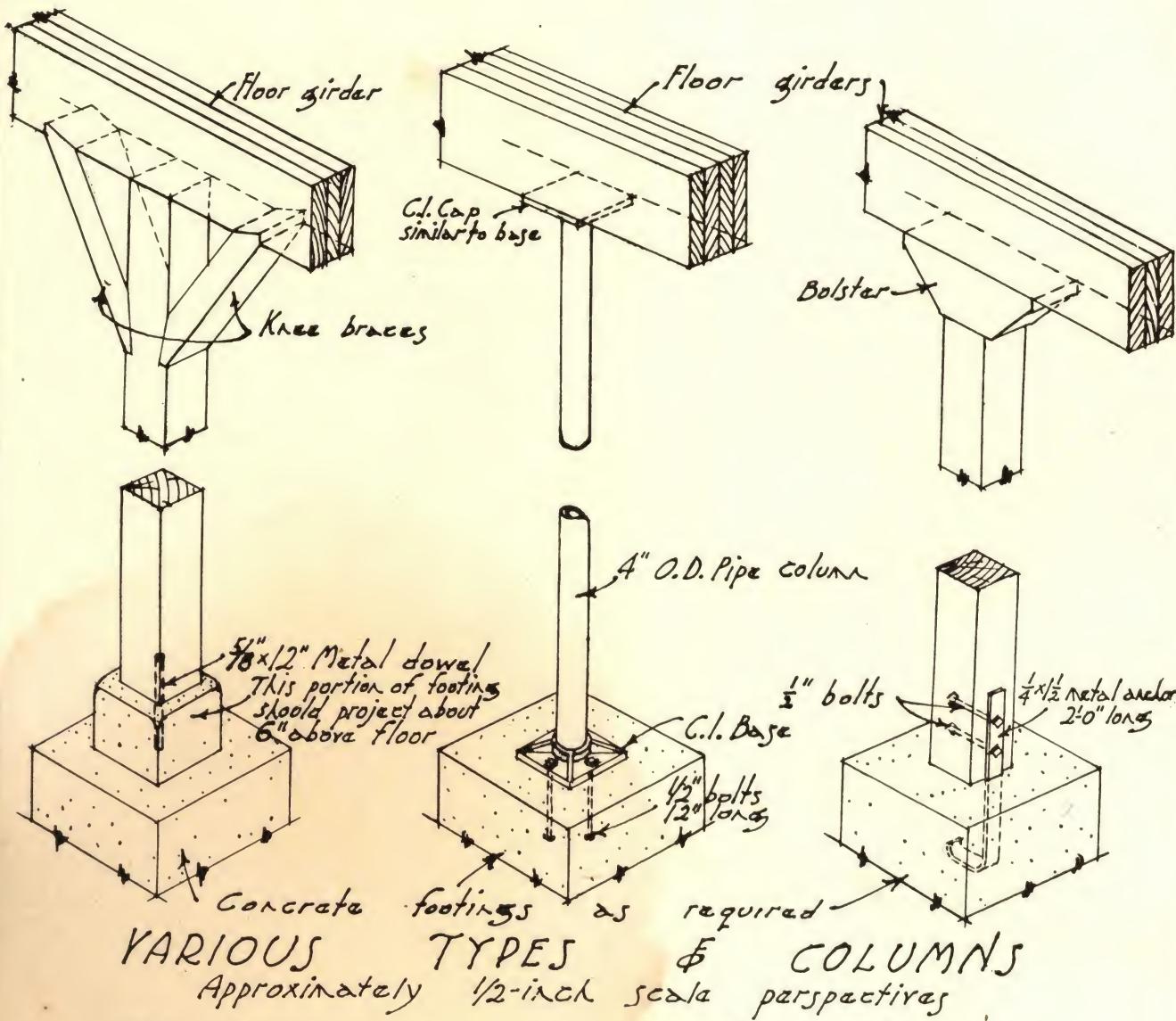




1/3-PITCH EAVE

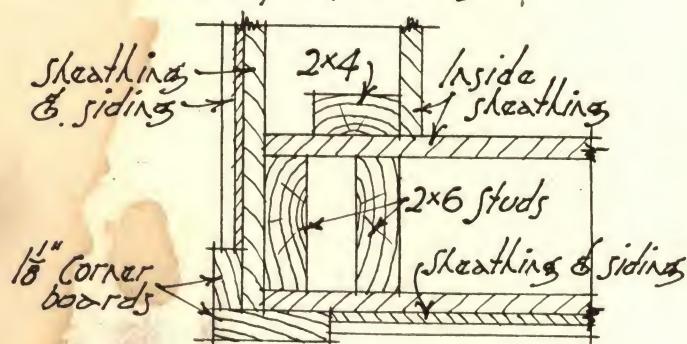
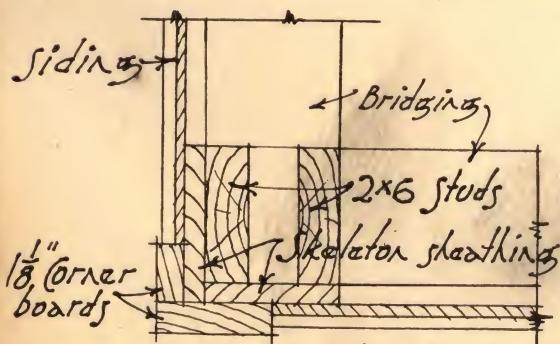
• ROOF FINISH •  
• BARN DETAILS •  
One inch scale



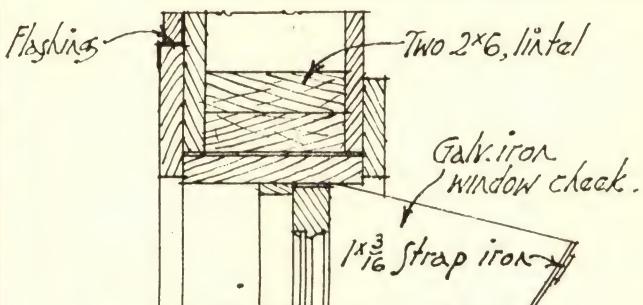


### VARIOUS TYPES OF COLUMNS

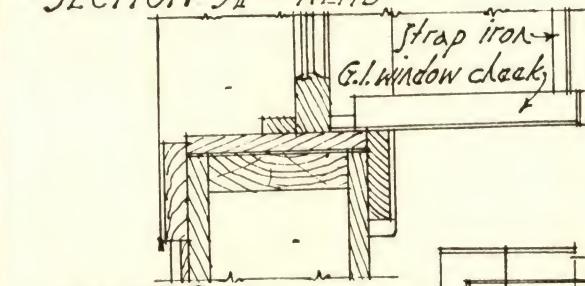
Approximately 1/2-inch scale perspectives



## BARN DETAILS



SECTION A - HEAD



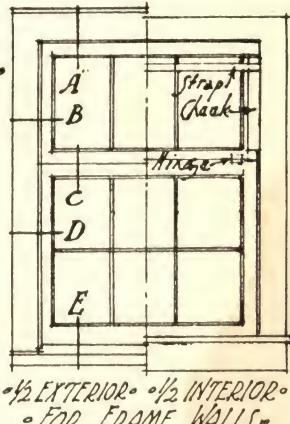
SECTION B - UPPER JAMB

Galv. window check

1 3/8" hinged sash

1 3/8" stationary sash

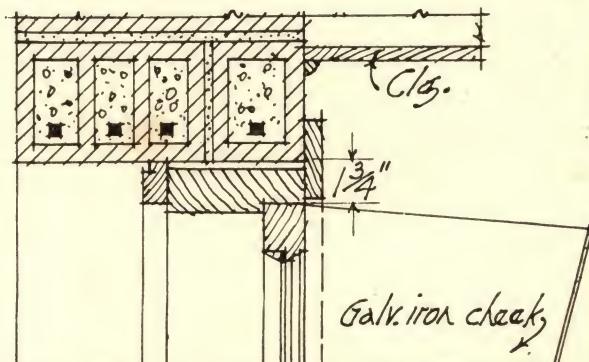
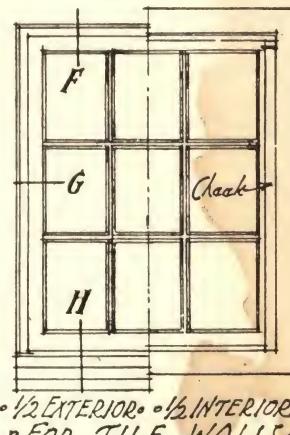
SECTION C - MEETING RAILS



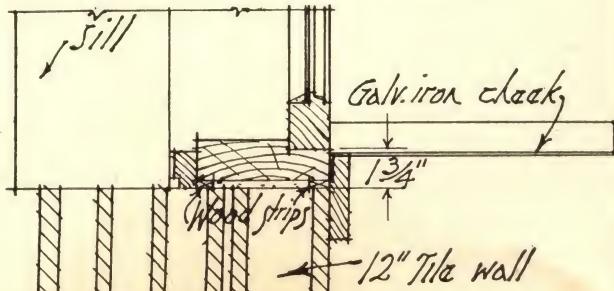
SECTION D - LOWER JAMB

2x10 sill

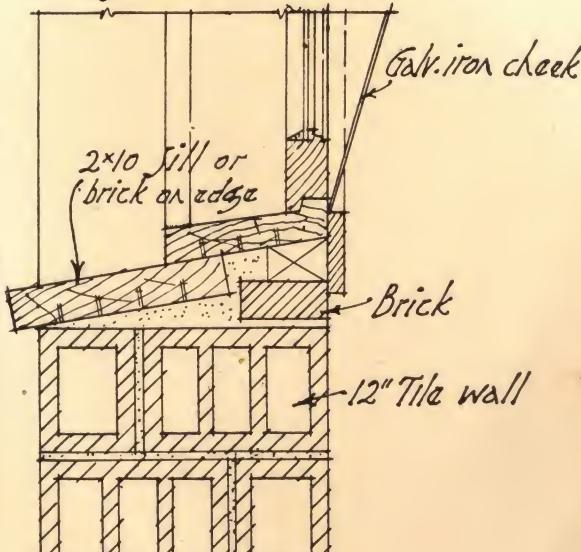
SECTION E - SILL



SECTION F - HEAD



SECTION G - JAMB



SECTION H - SILL

N.B. To fit the opening without cutting the tile, the sash should be either 2'-4", 2'-10" or 3'-4" wide & 4'-0" or 4'-6" high.

### WINDOWS IN FRAME WALLS

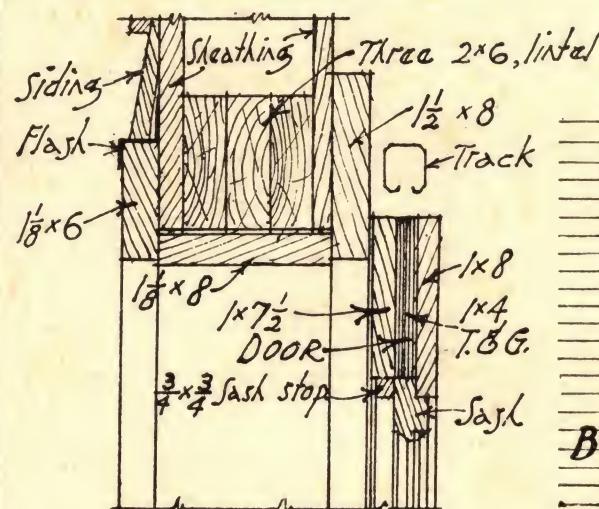
ADAPTED FROM DESIGNS BY  
U.S. DEPT. OF AGRICULTURE,  
DIVISION OF RURAL ENGINEERING.

For sections, 1/2-inch to 1 foot

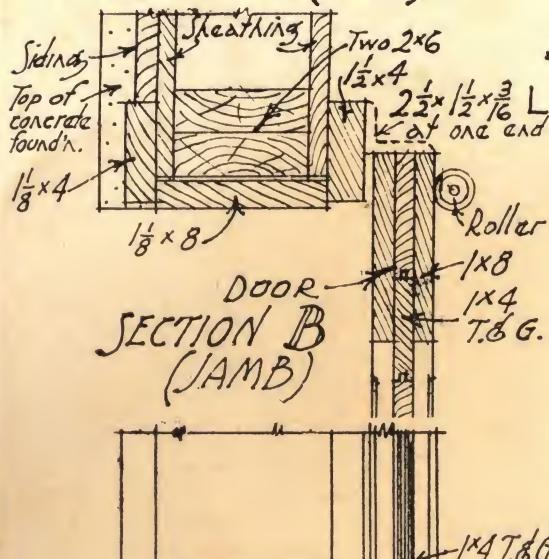
### WINDOWS IN HOLLOW TILE WALLS

ADAPTED FROM DESIGNS BY  
THE HOLLOW BUILDING  
TILE ASSOCIATION.

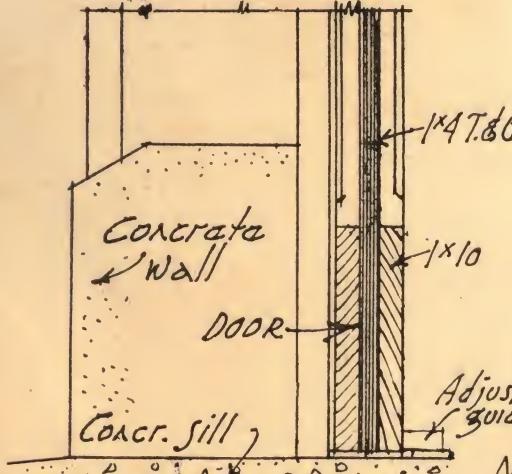
For elevations, 3/8-inch to 1 foot.



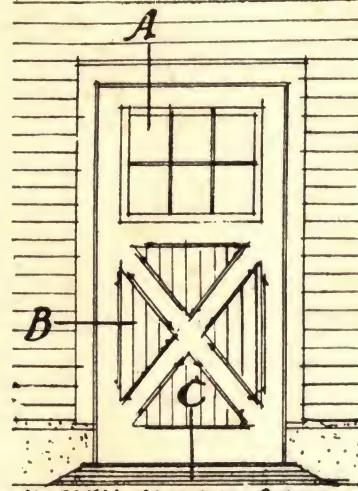
SECT'N. A (HEAD)



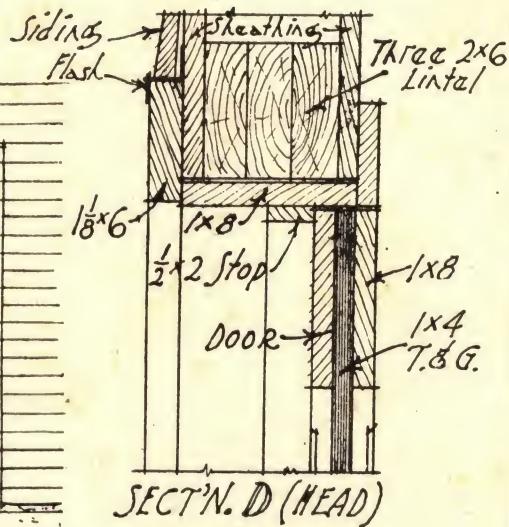
SECTION B (JAMB)



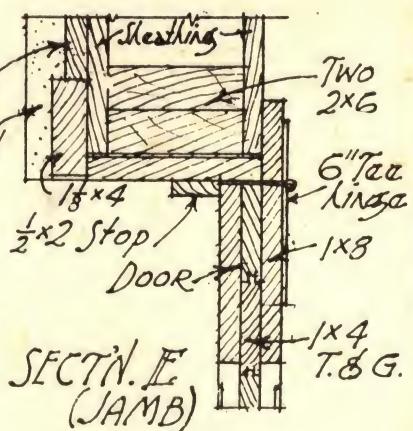
SECT'N. C (SILL)  
SLIDING DOOR (EXTERIOR)



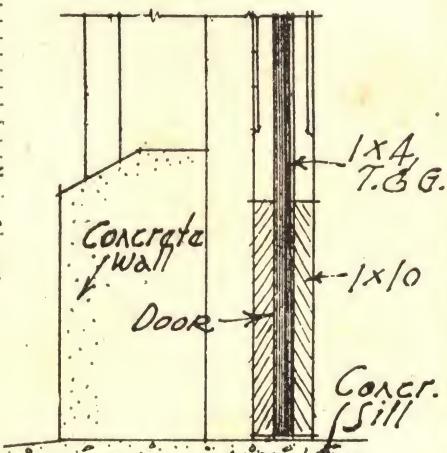
ELEV'N. - SLIDING DOOR



SECT'N. D (HEAD)



SECT'N. E (JAMB)

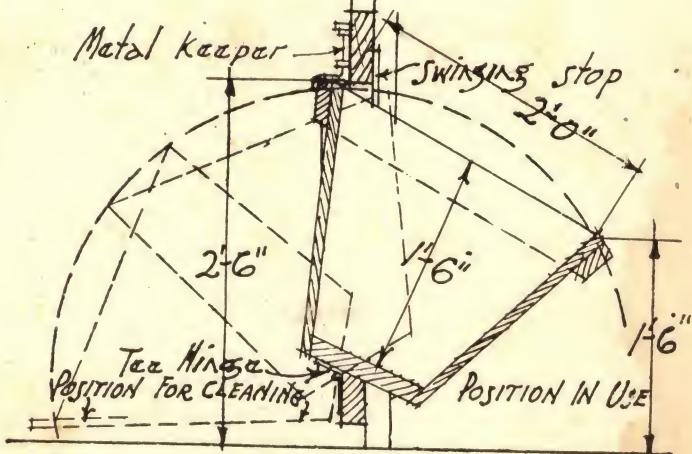
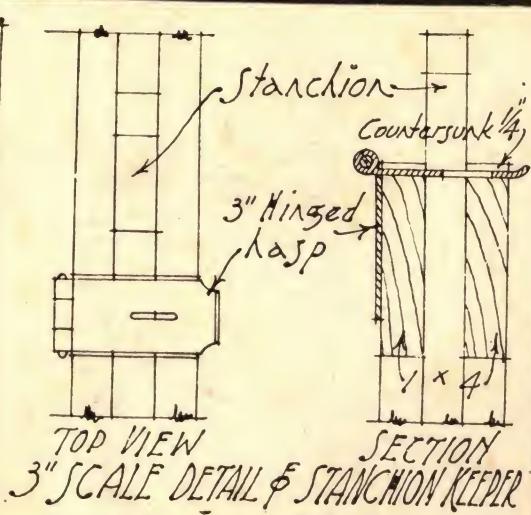
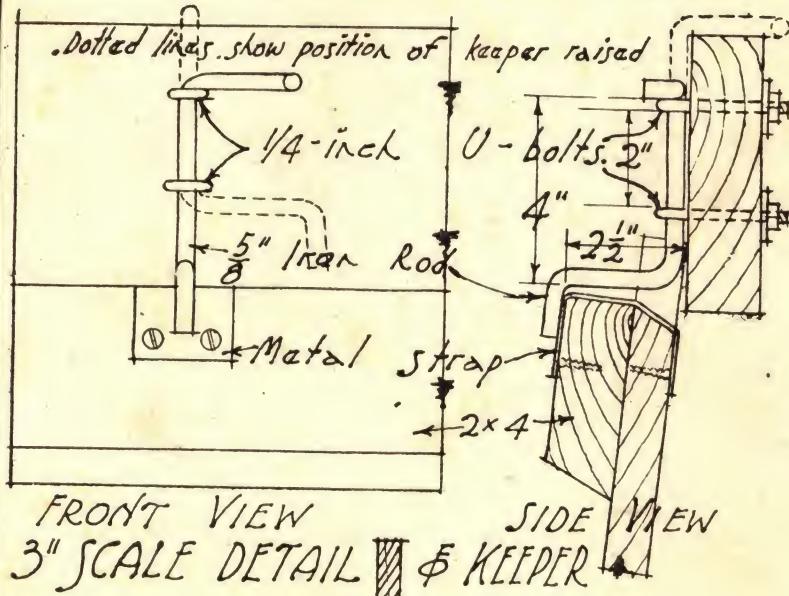


SECT'N. F (SILL)  
HINGED DOOR (EXTERIOR)

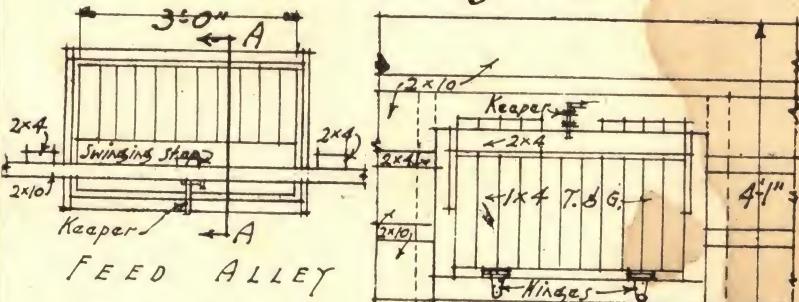
N.B. THESE DETAILS  
ARE FOR DOORS HUNG  
ON THE INSIDE.

## BARN DETAILS

ADAPTED FROM DESIGNS BY U.S. DEPT. OF AGRICULTURE-DIVISION OF RURAL ENGINEERING  
for details, 1 1/2-inch to 1 foot. 5 SCALE for elevations 1/4-inch to 1 foot.



3/4" SCALE SECTION AS AT A-A

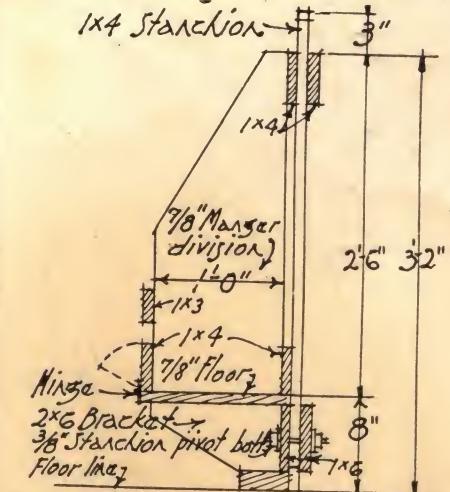


- PLAN - ELEV'N. FROM FEED ALLEY  
- 3/8-inch scale.

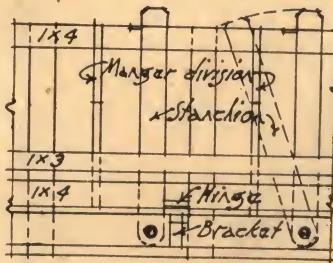
•TILTING MANGER FOR COW PENS•

## - BARN DETAILS -

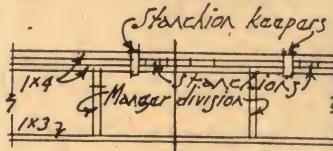
ADAPTED FROM DESIGNS BY U.S. DEPT. OF AGRICULTURE, DIVISION OF RURAL ENGINEERING.



3/4" SCALE SECTION AS AT B-B



3/8" SCALE PART ELEVATION



-FEED ← B ALLEY.  
3/8" SCALE PART PLAN  
MANGER FOR CALF PEN

